Legal Department

American Electric Power
1 Riverside Plaza
Columbus, OH 43215-2373
AEP.com

November 14, 2017

Chairman Asim Z. Haque
Ohio Power Siting Board
180 East Broad Street
Columbus, Ohio 43215

Hector Garcia
Christen M. Blend
Senior Counsel –
Regulatory Services
(614) 716-3410 (P)
(614) 716-1915 (P)
hgarcia1@aep.com
cmblend@aep.com

Re: In the Matter of the Letter of Notification for the Rhodes-Heppner Switch 138kV Transmission Line Project (aka the Northeast Jackson 138kV Transmission Line) Case No. 17-0807-EL-BLN Request for Expedited Treatment

Dear Chairman Haque,

Pursuant to O.A.C. 4906-6-05, attached please find a copy of the Letter of Notification for the above-referenced project by AEP Ohio Transmission Company, Inc.

A copy of this filing will also be submitted to the executive director or the executive director's designee. A copy will be provided to the Board Staff via electronic message. The Company will also submit a check in the amount of $2,000 to the Treasurer, State of Ohio, for Fund 5610 for the expedited fees.

If you have any questions, please do not hesitate to contact me.

Respectfully submitted,

/s/ Christen Blend
Christen Blend (0086881), Counsel of Record
Hector Garcia (0084517)
Counsel for AEP Ohio Transmission Company, Inc.

cc. John Jones, Counsel OPSB Staff
Jon Pawley, OPSB Staff

LETTER OF NOTIFICATION FOR Heppner-Rhodes 138 kV Transmission Line Project

PUCO Case No. 17-0807-EL-BLN

Submitted to:
The Ohio Power Siting Board
Pursuant to Ohio Administrative Code
Section 4906-6-05

Submitted by:
AEP Ohio Transmission Company, Inc.

November 14, 2017

LETTER OF NOTIFICATION

AEP Ohio Transmission Company, Inc.'s
Heppner-Rhodes 138 kV Transmission Line Project

4906-6-05

AEP Ohio Transmission Company, Inc. ("AEP Ohio Transco") provides the following information to the Ohio Power Siting Board ("OPSB") in accordance with the accelerated application requirements of Ohio Administrative Code Section 4906-6-05.

4906-6-05(B) General Information

B(1) Project Description

The name of the project and applicant's reference number, names and reference number(s) of resulting circuits, a brief description of the project, and why the project meets the requirements for a Letter of Notification.

AEP Ohio Transco proposes the Northeast Jackson 138 kV Transmission Line Project ("Project"), located in Coal and Lick Townships, Jackson County, Ohio. The Project involves rebuilding approximately 4.6 miles of existing 69 kilovolt ("kV") transmission line to 138 kV transmission line between the proposed Heppner Switch Station and proposed Rhodes Substation.

The Project consists of rebuilding the distribution line to a 138 kV single-circuit transmission line predominantly within an existing right-of-way ("ROW") between the proposed Heppner Switch Station and proposed Rhodes Substation. AEP Ohio Transco proposes a minor alignment shift of approximately 1,650 feet in the eastern quarter of the existing alignment to provide separation between the proposed rebuild alignment and an encroaching structure on the North side of the existing ROW. Figures 1.1 through 1.4 show the location of the 4.6-mile long Project in relation to the surrounding vicinity.

The Project meets the requirements for a Letter of Notification ("LON") because it is within the types of projects defined by (1)(d)(ii) of Appendix A to Ohio Administrative Code Section 4906-1-01, *Application Requirement Matrix for Electric Power Transmission Lines*. This item states:

1. *New construction, extension, or relocation of single or multiple circuit electric power transmission line(s), or upgrading existing transmission or distributions line(s) for operation at a higher transmission voltage, as follows:*

   (d) Line(s) primarily needed to attract or meet the requirements of a specific customer or customers, as follows:

      ii. *Any portion of the line is on property owned by someone other than the specific customer or applicant.*

B(2) Statement of Need

If the proposed Letter of Notification project is an electric power transmission line or gas or natural gas transmission line, a statement explaining the need for the proposed facility.

The existing portion of a current distribution line that is proposed to be rebuilt as the Heppner-Rhodes 138 kV Transmission Line was originally constructed in 1926 with wood poles and 4/0 copper conductor. The aging structures and conductor require upgrades to meet AEP Ohio Transco's current transmission facility standards in order to ensure service adequacy and reliability to the City of Jackson, which requires significant support due to its population and industry, as well as other portions of Ross and Jackson Counties. Rebuilding this circuit and constructing the Rhodes 138/69 kV substation, which is the subject of another application, will provide the area a third power source, improving the reliability for customers in the area.

For purposes of PJM Interconnection, LLC Regional Transmission, the proposed facilities are a supplemental project that are necessary to renew and modernize the area's aging transmission line infrastructure. The Project will strengthen the 138 kV transmission network in southeast/southern Ohio, support the electrical load required in future economic development in that area, and provide transmission grid reliability and resiliency. This project will be included in AEP Ohio Transco's 2018 PJM submittal and 2018 LTFR.

B(3) Project Location

The applicant shall provide the location of the project in relation to existing or proposed lines and substations shown on an area system map of sufficient scale and size to show existing and proposed transmission facilities in the Project area.

The location of the Project in relation to existing transmission lines and stations is shown on Figures 1.1 through 1.4. The Project directly impacts the following existing facilities:

- Heppner-Rhodes 69 kV transmission line
- Heppner-Lick 69 kV transmission line

The Project directly impacts the following proposed facilities:

- Heppner Switch Station
- Rhodes Substation

B(4) Alternatives Considered

The applicant shall describe the alternatives considered and reasons why the proposed location or route is best suited for the proposed facility. The discussion shall include, but not be limited to, impacts associated with socioeconomic, ecological, construction, or engineering aspects of the project.

The proposed Project is a rebuild of an existing 69 kV line to 138 kV transmission line and will predominately utilize the existing ROW; therefore, no other primary alternatives were considered. The proposed Project will not incur any significant negative socioeconomic, ecological, or construction impacts as the proposed Project will be largely within AEP Ohio Transco's currently maintained easement.

B(5) Public Information Program

The applicant shall describe its public information program to inform affected property owners and tenants of the nature of the project and the proposed timeframe for project construction and restoration activities.

AEP Ohio Transco informs affected property owners and tenants about this Project through several different mediums. Within seven days after it files this LON, AEP Ohio Transco will issue a public notice in a newspaper of general circulation in the Project area. The notice will comply with all requirements of O.A.C. 4906-6-08(A)(1)-(6). Further, AEP Ohio Transco will mail a letter, via first class mail, to affected landowners, tenants, contiguous owners, and any other landowner AEP Ohio Transco approached for an easement necessary for the construction, operation, or maintenance of the Project. That letter will comply with all the requirements of O.A.C 4906-6-08(B). AEP Ohio Transco also maintains a website (http://aeptransmission.com/ohio/) which provides the public access to an electronic copy of this LON and the public notice for this LON. An electronic copy of the LON will be provided on a CD to Jackson County Board of Commissioners, the Jackson County Engineer, Jackson County Soil and Water Conservation District, Coal Township Trustees, the Coal Township Fiscal Officer, Lick Township Board of Trustees, City of Jackson Mayor Randy Heath, and City of Jackson Councilman Eric Brown concurrently with its submittal to OPSB. A paper copy of the LON will also be provided to the Jackson City Library. AEP Ohio Transco retains ROW land agents who discuss project timelines, construction, and restoration activities with affected owners and tenants.

B(6) Construction Schedule

The applicant shall provide an anticipated construction schedule and proposed in-service date of the project.

AEP Ohio Transco anticipates that construction of the Project will begin in the first quarter of 2018, and the in-service date (completion date) of the Project will be approximately December 2018.

B(7) Area Map

The applicant shall provide a map of at least 1:24,000 scale clearly depicting the facility with clearly marked streets, roads, and highways, and an aerial image.

Figure 1.1 included in Appendix A identifies the location of the Project area on a United States Geological Survey 1:24,000 quadrangle map. Figure 1.2 in Appendix A is an aerial map of the Project area. To visit the Project from Columbus, Ohio, take US-23 S toward Circleville for approximately 40 miles. Continue onto US-35 E/US-50 E toward Jackson/Athens for approximately 28 miles, take the ramp right for OH-32/OH-124 and turn left. After 3.0 miles, turn left onto Rice Road, then turn right onto Fairgreens Road. Drive 1.5 miles and turn left. The eastern terminus of the Project (proposed Rhodes Substation) will be 0.2 miles on the left side of Fairgreens Road. The approximate address of the proposed Rhodes Substation is 3103 Fairgreens Road, Jackson, Ohio 45640 at latitude 39.0824, longitude -82.5492.

B(8) Property Agreements

The applicant shall provide a list of properties for which the applicant has obtained easements, options, and/or land use agreements necessary to construct and operate the facility and a list of the additional properties for which such agreements have not been obtained.

The proposed Project will be constructed predominantly within existing ROW. Provided below is a table of property parcel numbers with an indication if the easement/agreement/option necessary to construct and operate the facility has been obtained.

Property Parcel Number	Easement Agreement/ Option Obtained (Yes/No)
B020010014700	Yes
B020010015200	Yes
B020010014901	Yes
B020020003100	Yes
B020020003101	Yes
B020020003000	Yes
H120030016800	Yes
H120030016900	Yes
H120040000901	Yes
B020020002601	Yes
B020020002601	Yes
H120040001300	Yes
B020020003500	Yes
H120040001700	Yes
B020020003600	Yes
H120040001900	Yes
B020020012100	Yes
B020020014600	Yes
B020020014500	Yes
B020020014500	Yes
B020020014300	Yes
B020020015600	Yes

Property Parcel Number	Easement Agreement/ Option Obtained (Yes/No)
H120040013000	Yes
H120040013300	Yes
H120010004300	Yes
H120010004300	Yes
H120010004700	Yes
B020020015700	Yes
B020020015800	Yes
H120010004400	Yes
B020020016000	Yes
B020020016500	Yes
B020020016102	Yes
H120010003601	Yes
B020020016100	Yes
B020020016700	Yes
H120010004100	Yes
B020020018400	Yes
H120010003800	Yes
H120130206100	Yes
H120010008300	Yes
B020020017300	Yes
B020020017200	Yes
B020020017401	Yes
H120010008600	Yes
H120010008500	Yes
B020020017402	Yes
B020020017500	Yes
B020020018100	Yes
H130010000200	Yes
B020020017600	Yes

B(9) Technical Features

The applicant shall describe the following information regarding the technical features of the project:

B(9)(a) Operating characteristics, estimated number and types of structures required, and right-of-way and/or land requirements.

The proposed Project will consist of 1 – 3 phase circuit of 1033.5 kcmil ACSR 54/7 Curlew conductor. Two (2) 7#10 Alumoweld will be used as shield wires above the phase conductors. The insulator assemblies will consist of polymer insulators. The replacement structures will be primarily galvanized steel h-frame structures. Three pole structures will be used at running angle and dead end locations.

A sketch of the proposed structure type is included as Figure 2 in Appendix A.

B(9)(b) Electric and Magnetic Fields

For electric power transmission lines that are within one hundred feet of an occupied residence or institution, the production of electric and magnetic fields during the operation of the proposed electric power transmission line.

B(9)(b)(i) Calculated Electric and Magnetic Field Strength Levels

i) Calculated Electric and Magnetic Field Levels

Three loading conditions were examined: (1) normal maximum loading, (2) emergency line loading, and (3) winter normal conductor rating. Normal maximum loading represents the peak flow expected with all system facilities in service; daily/hourly flows fluctuate below this level. Emergency loading is the maximum current flow during unusual (contingency) conditions, which exist only for short periods of time. Winter normal ("WN") conductor rating represents the maximum current flow that a line, including its terminal equipment, can carry during winter conditions. It is not anticipated that this line would operate at its WN rating in the foreseeable future. Loading levels and the calculated electric and magnetic fields are summarized below.

EMF CALCULATIONS			
Condition	**Circuit Load (A)**	**Electric Field (kV/m)***	**Magnetic Field (mG)***
(1) Normal Maximum Loading	96.2	0.4/0.1/0.4	3.2/5.7/3.3
(2) Emergency Line Loading	468.6	0.4/0.1/0.4	15.3/27.8/16.0
(3) Winter Normal Conductor Rating	468.6	0.4/0.1/0.4	15.3/27.8/16.0

* EMF levels (left ROW edge/maximum/right ROW edge) calculated one meter above ground assuming balanced currents and nominal voltages. Electric fields reflect normal and emergency operations; lower electric fields are expected during emergency conditions when one mutually-coupled line is out of service.

B(9)(b)(ii) Design Alternatives

A discussion of the applicant's consideration of design alternatives with respect to electric and magnetic fields and their strength levels, including alternate conductor configuration and phasing, tower height, corridor location, and right-of-way width.

Transmission line rebuild work associated with the Project will occur primarily within AEP Ohio Transco's existing ROW; therefore, no design alternatives were considered.

B(9)(b)(ii)(c) Project Cost

The estimated capital cost of the project.

The capital costs estimate for the proposed Project, comprised of applicable tangible and capital costs, is approximately $7,000,000.

B(10) Social and Economic Impacts

The applicant shall describe the social and ecological impacts of the project:

B(10)(a) Operating Characteristics

Provide a brief, general description of land use within the vicinity of the proposed project, including a list of municipalities, townships, and counties affected.

The Project is located in Coal and Lick Townships, Jackson County, Ohio; outside the city limits of the City of Jackson. Figure 1.3 in Appendix A shows U.S. Department of Agriculture land use categories for the Project area. According to this map, land uses in the Project area consists of hay/pasture, deciduous forest, cultivated crops, and developed open space. Eleven (11) wetlands and sixteen (16) streams were identified within the Project area.

The Ohio Department of Natural Resources ("ODNR") Division of Wildlife ("DOW") Natural Heritage Program ("NHP") responded in a letter dated October 20, 2017 (Project ID 17-638) indicating that the Coalton Wildlife Area (managed by the ODNR DOW) is located within a one-mile radius of the Project area. The Coalton Wildlife Area is a 1,729 acre tract of land managed for public hunting and fishing and is located approximately 1,800 feet north of the western terminus of the Project. The Coalton Wildlife Area will not be impacted by the Project. The United States Fish and Wildlife Service ("USFWS") Columbus Ecological Services Office responded in an email dated May 31, 2017 (Project ID 03E15000-2017-TA-1326) indicating that there are no federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the Project area. Consultation with the ODNR NHP and USFWS is provided in Appendix D.

B(10)(b) Agricultural Land Information

Provide the acreage and a general description of all agricultural land, and separately all agricultural district land, existing at least sixty days prior to submission of the application within the potential disturbance area of the project.

The Project is not located within or cross a registered agricultural district land, based on data received from the Jackson County Auditor's office on October 20, 2017. Additionally, the Project area does not contain any active agricultural row crop land (see Figure 1.3 in Appendix A and Figure 2 in Appendix D).

B(10)(c) Archaeological and Cultural Resources

Provide a description of the applicant's investigation concerning the presence or absence of significant archaeological or cultural resources that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

In September 2017, AEP Ohio Transco's consultant completed a Phase I Archaeological Investigations for the Project (see Appendix B). The field investigations were completed within a 100 foot wide corridor along the entire 4.6-mile Project. Many situations were found to be poorly suited for testing due to steeply sloping conditions and, to a lesser degree, disturbances.

The literature review completed for the Project study area was defined as a 1,000 foot radius from the boundaries of the Project. The literature review identified two previously recorded archaeological sites; (1) the Columbia Chapel Site (33JA0016) on an old terrace within the Horse Creek Valley and on a church parcel that is south of the Project, and (2) a geometric hilltop or ridge top enclosure (Site 33JA0274) that has been destroyed. Neither of these sites are located within the Project corridor or its immediate vicinity and thus will not be impacted by the Project. Aspects of the Project have been subject of previous investigations, especially the western parts, as discussed in Appendix B, however, none of the previous work identified cultural resources that are relative to the Project. There are two cemeteries indicated within the study area including Exline and Keenan-Lively-Sullivan, but they are not in close proximity to the Project.

The archaeological investigations resulted in the identification of three previously unrecorded archaeological sites: 33JA0408, 33JA0409, and 33JA0410. Two of the sites are prehistoric period lithic artifact scatters and one is a historic period/prehistoric period site. These sites are not considered to be significant archaeological deposits or indicative of landmarks. No further archaeological investigations are recommended for the Project. For more information, see the Phase I Archaeological Investigations Report provided as Appendix B.

In August 2017, AEP Ohio Transco's consultant completed history/architecture investigations for the Project (see Appendix C). The history/architecture investigations consisted of a systematic survey of properties 50 years of age or older that are situated within 1,000 feet on either side of the proposed Project. In total, three individual properties of 50 years of age or older were identified within the survey Area of Potential Effect, that may have a direct line-of-sight to the transmission line. The three identified properties were determined not eligible for listing in the National Register of Historic Places due to alterations, additions, and a loss of historic integrity. Upon analyzing the Application of Criteria of Effect, a finding of no historic properties affected is recommended. For more information, see the Architectural Investigations Report provided as Appendix C.

B(10)(d) Local, State, and Federal Agency Correspondence

Provide a list of the local, state, and federal governmental agencies known to have requirements that must be met in connection with the construction of the project, and a list of documents that have been or are being filed with those agencies in connection with siting and constructing the project.

A Notice of Intent ("NOI") will be filed with the Ohio Environmental Protection Agency ("OEPA") for authorization of construction storm water discharges under General Permit OHC000004, and AEP Ohio Transco will implement and maintain best management practices, as outlined in the project-specific Storm Water Pollution Prevention Plan, to minimize erosion and control sediment to protect surface water quality during storm events. The Project will temporarily impact streams and wetlands during construction and those impacts are anticipated to be covered under a United States Army Corps of Engineers ("USACE") Nationwide Permit 12 – Utility Line Activities, as a non-reporting activity in the USACE Huntington District. It is also anticipated that the Project will meet the terms and conditions of the pre-authorized Section 401 Water Quality Certification from the OEPA. No forested or scrub-shrub wetlands (i.e., Palustrine Forested and Palustrine Scrub-Shrub) were identified within the Project study area, therefore

tree clearing will not be required in any forested wetlands and shrub clearing will not be required in any scrub-shrub wetlands (see Appendix D).

The Project is not located within a Federal Emergency Management Agency ("FEMA") 100-year floodplain area. Therefore, no FEMA floodplain permitting is required for the Project.

Applicable municipal and state road and driveway permits will be applied for and obtained as necessary prior to construction.

There are no other known local, state, or federal requirements that must be met prior to commencement of the Project.

B(10)(e) Threatened, Endangered, and Rare Species

Provide a description of the applicant's investigation concerning the presence or absence of federal and state designated species (including endangered species, threatened species, rare species, species proposed for listing, species under review for listing, and species of special interest) that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

The USFWS *Federally Listed Species by Ohio Counties May 2017* (available at https://www.fws.gov/midwest/endangered/lists/pdf/OhioCtyListMay2017.pdf) was reviewed to determine the threatened and endangered species known to occur in Jackson County. This USFWS publication lists the following species as occurring within Jackson County: Indiana bat (*Myotis sodalis*; federally endangered), northern long-eared bat (*Myotis septentrionalis;* federally threatened), running buffalo clover (*Trifolium stoloniferum*; federally endangered), timber rattlesnake (*Crotalus horridus*; federal species of concern), and bald eagle (*Haliaeetus leucocephalus*; federal species of concern). As part of the ecological study completed for the Project, a coordination letter was submitted to the USFWS Ohio Ecological Services Field Office seeking technical assistance on the Project for potential impacts to threatened or endangered species. The June 2, 2017 response letter from USFWS (see Appendix D) indicated that the proposed Project is within the range of the Indiana bat and northern long-eared bat in Ohio, but if tree clearing occurs between October 1 and March 31, they do not anticipate the Project having any adverse effects to these species or any other federally listed endangered, threatened, proposed, or candidate species. The proposed Project will require tree clearing within existing and new ROW. AEP Ohio Transco anticipates tree clearing associated with the Project will occur between October 1 and March 31.

Several state-listed threatened species, endangered species, and species of concern are listed by the Ohio Department of Natural Resources (available at http://wildlife.ohiodnr.gov/portals/wildlife/pdfs/species%20and%20habitats/state-listed%20species/jackson.pdf) as occurring, or potentially occurring in Jackson County. These state-listed species are addressed in detail in the Ecological Survey Report included in Appendix D.

A coordination letter was submitted to the ODNR DOW NHP in May 2017, seeking an environmental review of the proposed Project for potential impacts on state-listed threatened or endangered species. The October 20, 2017 response letter from ODNR DOW NHP (see Appendix D; Project ID 17-638) indicated that the

Cerulean Warbler (*Setophaga cerulea*), a state and federal species of concern has records within a one-mile radius of the Project area. However, impacts to the nesting Cerulean Warbler are not anticipated as tree clearing is anticipated to be completed outside of the species' nesting season. The response letter is also within the range of the Indiana bat, a state endangered and federally endangered species, but if tree clearing occurs between October 1 and March 31, the ODNR DOW does not anticipate the Project having any adverse effects to the Indiana bat. The Project is also located within the range of the following state listed species: little spectaclecase (*Villosa lienosa*), Ohio lamprey (*Ichthyomyzon bdellium*), lake chubsucker (*Erimyzon sucetta*), timber rattlesnake (*Crotalus horidus horridus*), Kirtland's snake (*Clonophis kirtlandii*), mud salamander (*Pseudotriton montanus*), and black bear (*Ursus americanus*). In regards to the little spectaclecase, the Project is not likely to impact this species due to the Project location and that there is no in-water work proposed in a perennial stream of sufficient size. For the Ohio lamprey and lake chubsucker, the DOW recommends no in-water work in perennial streams from April 15 through June 30 to reduce impacts to these indigenous aquatic species and their habitat; these species will not be impacted as no in-stream work is proposed for the Project. As for the remaining species, the Project is not likely to impact the timber rattlesnake, Kirtland's snake, mud salamander, and black bear due to the Project location, type of habitat along the Project route and within the vicinity of the Project route, or the mobility of the species per the ODNR.

B(10)(f) Areas of Ecological Concern

Provide a description of the applicant's investigation concerning the presence or absence of areas of ecological concern (including national and state forests and parks, floodplains, wetlands, designated or proposed wilderness areas, national and state wild and scenic rivers, wildlife areas, wildlife refuges, wildlife management areas, and wildlife sanctuaries) that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

The ODNR DOW NHP responded in a letter dated October 20, 2017 (Project ID 17-638; see Appendix D) indicating that the Coalton Wildlife Area (managed by the ODNR DOW) is located within a one-mile radius of the Project area. The Coalton Wildlife Area is a 1,729 acre tract of land managed for public hunting and fishing and is located approximately 1,800 feet north of the western terminus of the Project. The Coalton Wildlife Area will not be impacted by the Project. No state forests or parks will be impacted by the Project. Correspondence received from the USFWS (see Appendix D) indicated that there are no federal wilderness areas, wildlife refuges, or designated critical habitat in the Project vicinity. No properties identified in the National Conservation Easement Database (http://www.conservationeasement.us) were identified in the Project vicinity.

The FEMA Flood Insurance Rate Map was reviewed to identify any floodplains/flood hazard areas that have been mapped within the Project area (specifically, map numbers 39079C0134K, 39079C0155K, and 39079C0160K). Based on this mapping, no mapped FEMA floodplains are located in the Project area. Therefore, a floodplain permit will not be required for this Project.

A review of the National Wetlands Inventory ("NWI") database indicated that there were two (2) NWI-mapped wetlands identified within the Project area. Wetland and stream delineation field surveys were completed within the Project area by AEP Ohio Transco's consultant in May, June, and July, 2017. The results of the wetland and stream delineations are presented in the Ecological Survey Report included in Appendix D.

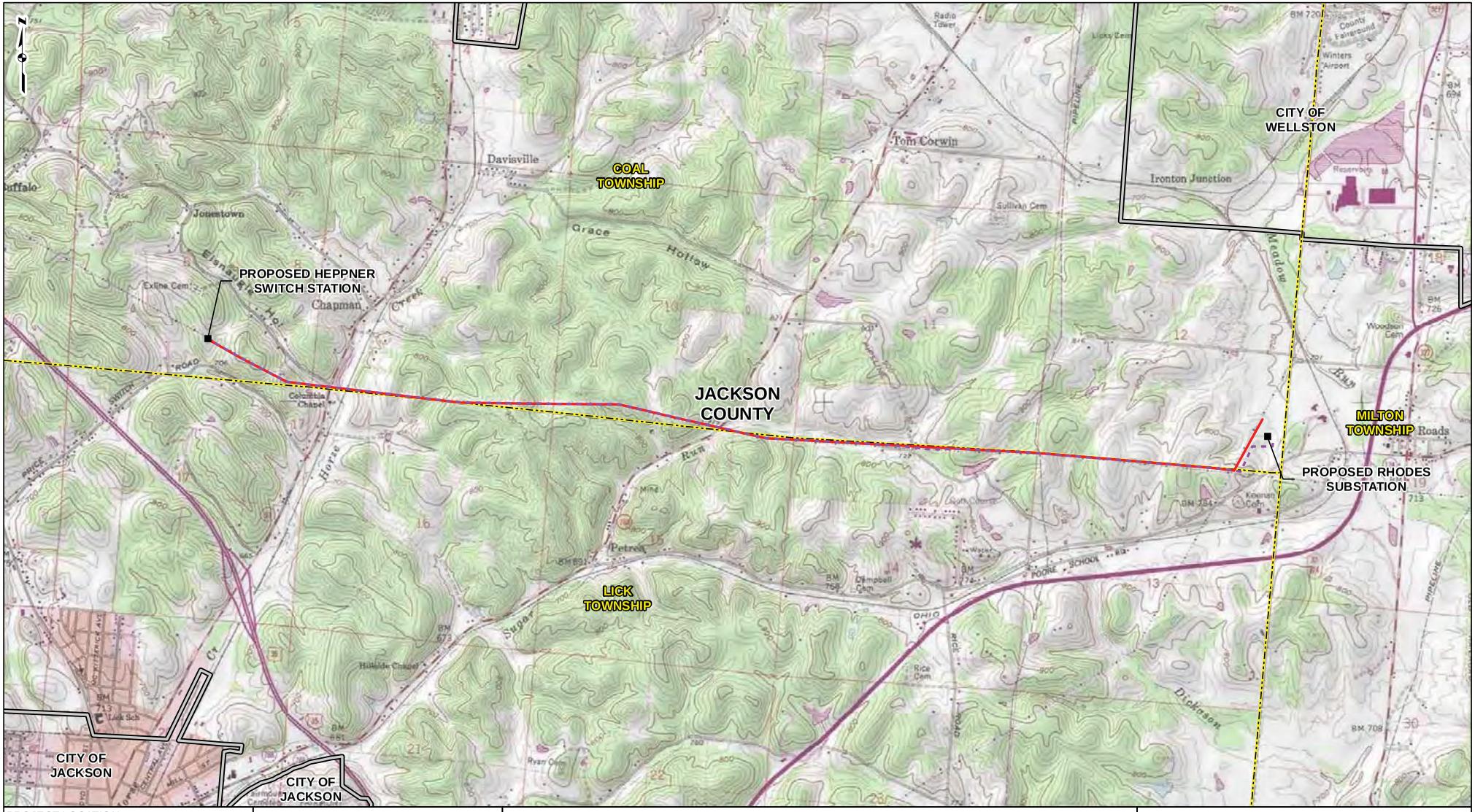
B(10)(g) Unusual Conditions

Provide any known additional information that will describe any unusual conditions resulting in significant environmental, social, health, or safety impacts.

To the best of AEP Ohio Transco's knowledge, no unusual conditions exist that would result in significant environmental, social, health, or safety impacts.

Appendix A Project Maps and Structure Design

Figures 1.1, 1.2, 1.3, and 1.4 and Figure 2



PROJECT LOCATION

JACKSON COUNTY, OHIO

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: JACKSON (1978) AND WELLSTON (1977), OHIO, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND USGS, ACCESSED 11/2017.

LEGEND

- PROPOSED STATION
- PROPOSED 138kV TRANSMISSION LINE
- EXISTING 69kV TRANSMISSION LINE
- COUNTY BOUNDARY
- TOWNSHIP BOUNDARY
- CITY BOUNDARY

0 1,000 2,000 4,000 Feet

FIGURE 1.1
PROJECT LOCATION MAP

HEPPNER-RHODES
138 kV TRANSMISSION LINE PROJECT
AEP OHIO TRANSMISSION COMPANY, INC.

DRAWN BY: AKW DATE: 11/14/2017
CHECKED: EFJ APPROVED: ARW

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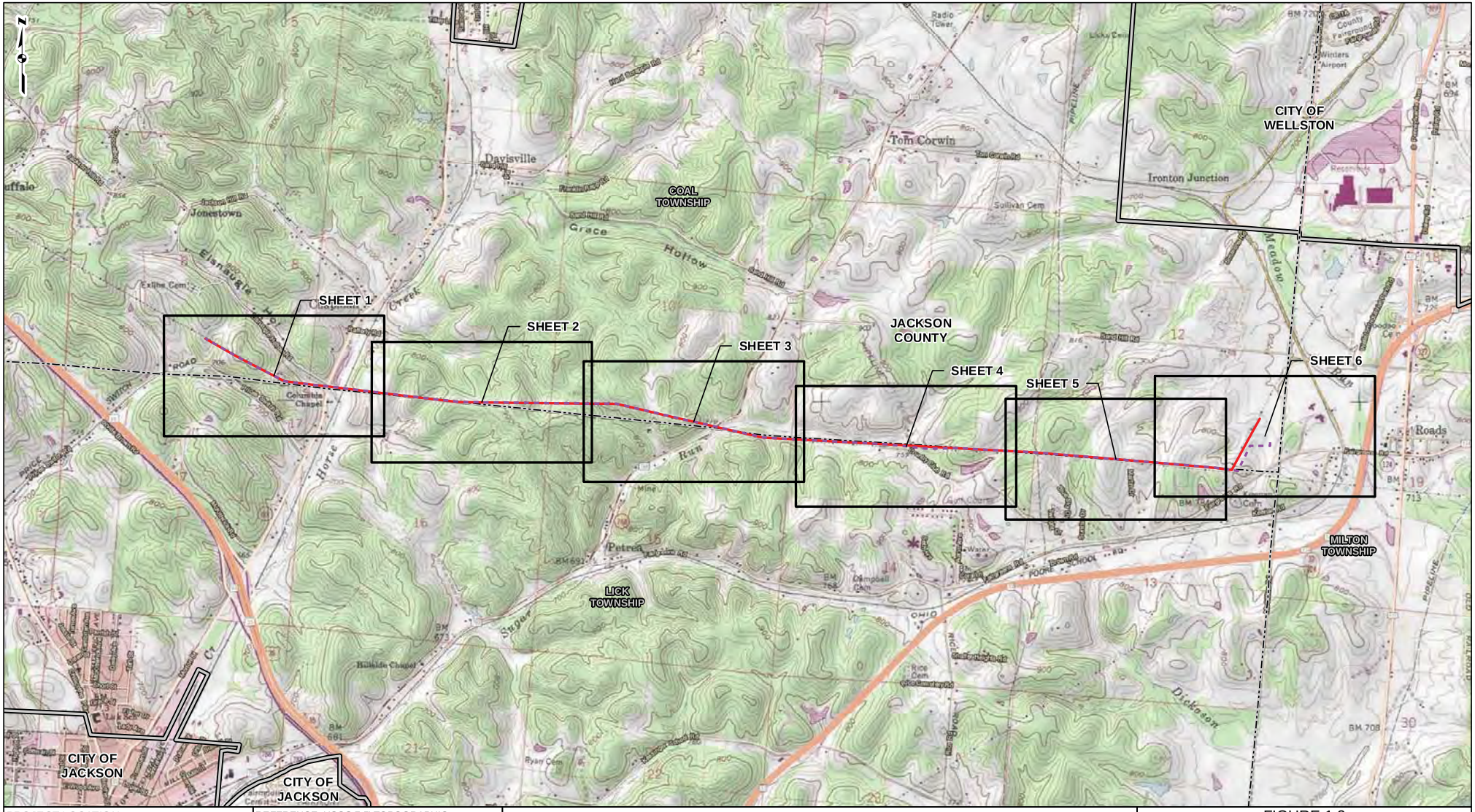

FIGURE 1.2
PROJECT LAYOUT MAP
SHEET INDEX

HEPPNER-RHODES
138 kV TRANSMISSION LINE PROJECT
AEP OHIO TRANSMISSION COMPANY, INC.

DRAWN BY: AKW
DATE: 11/14/2017
CHECKED: EFJ
APPROVED: ARW

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PROJECT LOCATION

JACKSON COUNTY, OHIO

REFERENCES: ESRI WORLD IMAGERY, MICROSOFT, UC - G, 2011, ACCESSED 11/2017. WORLD TRANSPORTATION, ESRI, DELORME, HERE, MAPMYINDIA, TOMTOM, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY, OBTAINED THROUGH ESRI ARCGIS ONLINE, ACCESSED 11/2017.

LEGEND

- PROPOSED STATION
- PROPOSED 138kV TRANSMISSION LINE
- EXISTING 69kV TRANSMISSION LINE
- CITY BOUNDARY
- TOWNSHIP BOUNDARY
- COUNTY BOUNDARY

0 150 300 600 Feet

FIGURE 1.2
PROJECT LAYOUT MAP
SHEET 1 OF 6

HEPPNER-RHODES
138 kV TRANSMISSION LINE PROJECT
AEP OHIO TRANSMISSION COMPANY, INC.

DRAWN BY: AKW DATE: 11/14/2017
CHECKED: EFJ APPROVED: ARW

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PROJECT LOCATION

JACKSON COUNTY, OHIO

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LEGEND

- PROPOSED STATION
- PROPOSED 138kV TRANSMISSION LINE
- EXISTING 69kV TRANSMISSION LINE
- CITY BOUNDARY
- TOWNSHIP BOUNDARY
- COUNTY BOUNDARY

0 150 300 600 Feet

FIGURE 1.2
PROJECT LAYOUT MAP
SHEET 2 OF 6

HEPPNER-RHODES
138 kV TRANSMISSION LINE PROJECT
AEP OHIO TRANSMISSION COMPANY, INC.

DRAWN BY: AKW DATE: 11/14/2017
CHECKED: EFJ APPROVED: ARW

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JACKSON COUNTY, OHIO

REFERENCES: ESRI WORLD IMAGERY, MICROSOFT, UC - G, 2011, ACCESSED 11/2017. WORLD TRANSPORTATION, ESRI, DELORME, HERE, MAPMYINDIA, TOMTOM, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY, OBTAINED THROUGH ESRI ARCGIS ONLINE, ACCESSED 11/2017.

LEGEND

- PROPOSED STATION
- PROPOSED 138kV TRANSMISSION LINE
- EXISTING 69kV TRANSMISSION LINE
- CITY BOUNDARY
- TOWNSHIP BOUNDARY
- COUNTY BOUNDARY

0 150 300 600 Feet

FIGURE 1.2
PROJECT LAYOUT MAP
SHEET 3 OF 6

HEPPNER-RHODES
138 kV TRANSMISSION LINE PROJECT
AEP OHIO TRANSMISSION COMPANY, INC.

DRAWN BY: AKW
DATE: 11/14/2017
CHECKED: EFJ
APPROVED: ARW

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PROJECT LOCATION

JACKSON COUNTY, OHIO

REFERENCES: ESRI WORLD IMAGERY, MICROSOFT, UC - G, 2011, ACCESSED 11/2017. WORLD TRANSPORTATION, ESRI, DELORME, HERE, MAPMYINDIA, TOMTOM, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY, OBTAINED THROUGH ESRI ARCGIS ONLINE, ACCESSED 11/2017.

LEGEND

- PROPOSED STATION
- PROPOSED 138kV TRANSMISSION LINE
- EXISTING 69kV TRANSMISSION LINE
- CITY BOUNDARY
- TOWNSHIP BOUNDARY
- COUNTY BOUNDARY

0 150 300 600 Feet

FIGURE 1.2
PROJECT LAYOUT MAP
SHEET 4 OF 6

HEPPNER-RHODES
138 kV TRANSMISSION LINE PROJECT
AEP OHIO TRANSMISSION COMPANY, INC.

DRAWN BY: AKW	DATE: 11/14/2017
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PROJECT LOCATION

JACKSON COUNTY, OHIO

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LEGEND

- PROPOSED STATION
- PROPOSED 138kV TRANSMISSION LINE
- EXISTING 69kV TRANSMISSION LINE
- CITY BOUNDARY
- TOWNSHIP BOUNDARY
- COUNTY BOUNDARY

0 150 300 600 Feet

FIGURE 1.2
PROJECT LAYOUT MAP
SHEET 5 OF 6

HEPPNER-RHODES
138 kV TRANSMISSION LINE PROJECT
AEP OHIO TRANSMISSION COMPANY, INC.

DRAWN BY: AKW DATE: 11/14/2017
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PROJECT LOCATION

JACKSON COUNTY, OHIO

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LEGEND

- PROPOSED STATION
- PROPOSED 138kV TRANSMISSION LINE
- EXISTING 69kV TRANSMISSION LINE
- CITY BOUNDARY
- TOWNSHIP BOUNDARY
- COUNTY BOUNDARY

0 150 300 600 Feet

FIGURE 1.2
PROJECT LAYOUT MAP
SHEET 6 OF 6

HEPPNER-RHODES
138 kV TRANSMISSION LINE PROJECT
AEP OHIO TRANSMISSION COMPANY, INC.

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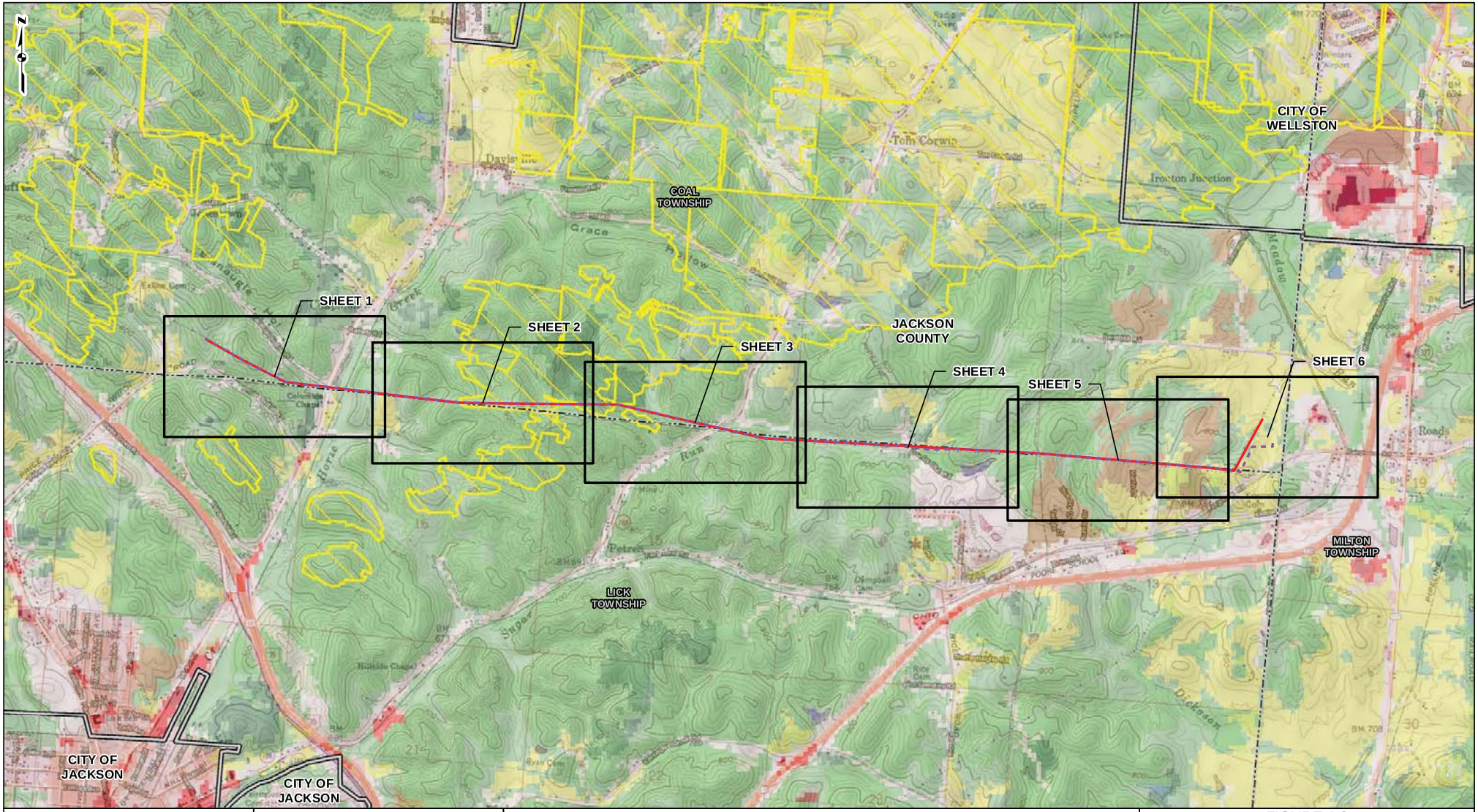

PROJECT LOCATION

JACKSON COUNTY, OHIO

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: JACKSON (1978) AND WELLSTON (1977), OHIO, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND USGS, ACCESSED 11/2017. NLCD POLYGONS: NATIONAL LAND COVER DATABASE (NLCD), 2011. ABANDONED MINES: ODNR (OHIO DEPARTMENT OF NATURAL RESOURCES), 2015.

LEGEND

- PROPOSED 138kV TRANSMISSION LINE
- EXISTING 69kV TRANSMISSION LINE
- SHEET INDEX
- ABANDONED MINE
- CITY BOUNDARY
- TOWNSHIP BOUNDARY
- COUNTY BOUNDARY

NATIONAL LAND COVER DATABASE

- WOODY WETLANDS
- SHRUB/SCRUB
- OPEN WATER
- MIXED FOREST
- HERBACEUOUS
- HAY/PASTURE
- EVERGREEN FOREST
- EMERGENT HERBACEUOUS WETLANDS
- DEVELOPED, OPEN SPACE
- DEVELOPED, MEDIUM INTENSITY
- DEVELOPED, LOW INTENSITY
- DEVELOPED, HIGH INTENSITY
- DECIDUOUS FOREST
- CULTIVATED CROPS
- BARREN LAND

0 1,000 2,000 4,000 Feet

FIGURE 1.3
LAND USE MAP
SHEET INDEX

HEPPNER-RHODES
138 kV TRANSMISSION LINE PROJECT
AEP OHIO TRANSMISSION COMPANY, INC.

DRAWN BY: AKW DATE: 11/14/2017
CHECKED: EFJ APPROVED: ARW

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PROJECT LOCATION

JACKSON COUNTY, OHIO

REFERENCES: ESRI WORLD IMAGERY, MICROSOFT, UC - G, 2011, ACCESSED 11/2017. WORLD TRANSPORTATION, ESRI, DELORME, HERE, MAPMYINDIA, TOMTOM, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY, OBTAINED THROUGH ESRI ARCGIS ONLINE, ACCESSED 11/2017. NLCD POLYGONS: NATIONAL LAND COVER DATABASE (NLCD), 2011. ABANDONED MINES: ODNR (OHIO DEPARTMENT OF NATURAL RESOURCES), 2015.

LEGEND

- PROPOSED STATION
- PROPOSED 138kV TRANSMISSION LINE
- EXISTING 69kV TRANSMISSION LINE
- ABANDONED MINE
- TOWNSHIP BOUNDARY
- COUNTY BOUNDARY
- CITY BOUNDARY

NATIONAL LAND COVER DATABASE

- OPEN WATER
- HERBACEUOUS
- HAY/PASTURE
- EVERGREEN FOREST
- DEVELOPED, OPEN SPACE
- DECIDUOUS FOREST
- CULTIVATED CROPS

0 150 300 600 Feet

FIGURE 1.3
LAND USE MAP
SHEET 1 OF 6

HEPPNER-RHODES
138 kV TRANSMISSION LINE PROJECT
AEP OHIO TRANSMISSION COMPANY, INC.

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PROJECT LOCATION

JACKSON COUNTY, OHIO

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LEGEND

- PROPOSED STATION
- PROPOSED 138kV TRANSMISSION LINE
- EXISTING 69kV TRANSMISSION LINE
- ABANDONED MINE
- TOWNSHIP BOUNDARY
- COUNTY BOUNDARY
- CITY BOUNDARY

NATIONAL LAND COVER DATABASE

- OPEN WATER
- HERBACEUOUS
- HAY/PASTURE
- EVERGREEN FOREST
- DEVELOPED, OPEN SPACE
- DECIDUOUS FOREST
- CULTIVATED CROPS

0 150 300 600 Feet

FIGURE 1.3
LAND USE MAP
SHEET 2 OF 6

HEPPNER-RHODES
138 kV TRANSMISSION LINE PROJECT
AEP OHIO TRANSMISSION COMPANY, INC.

DRAWN BY: AKW DATE: 11/14/2017
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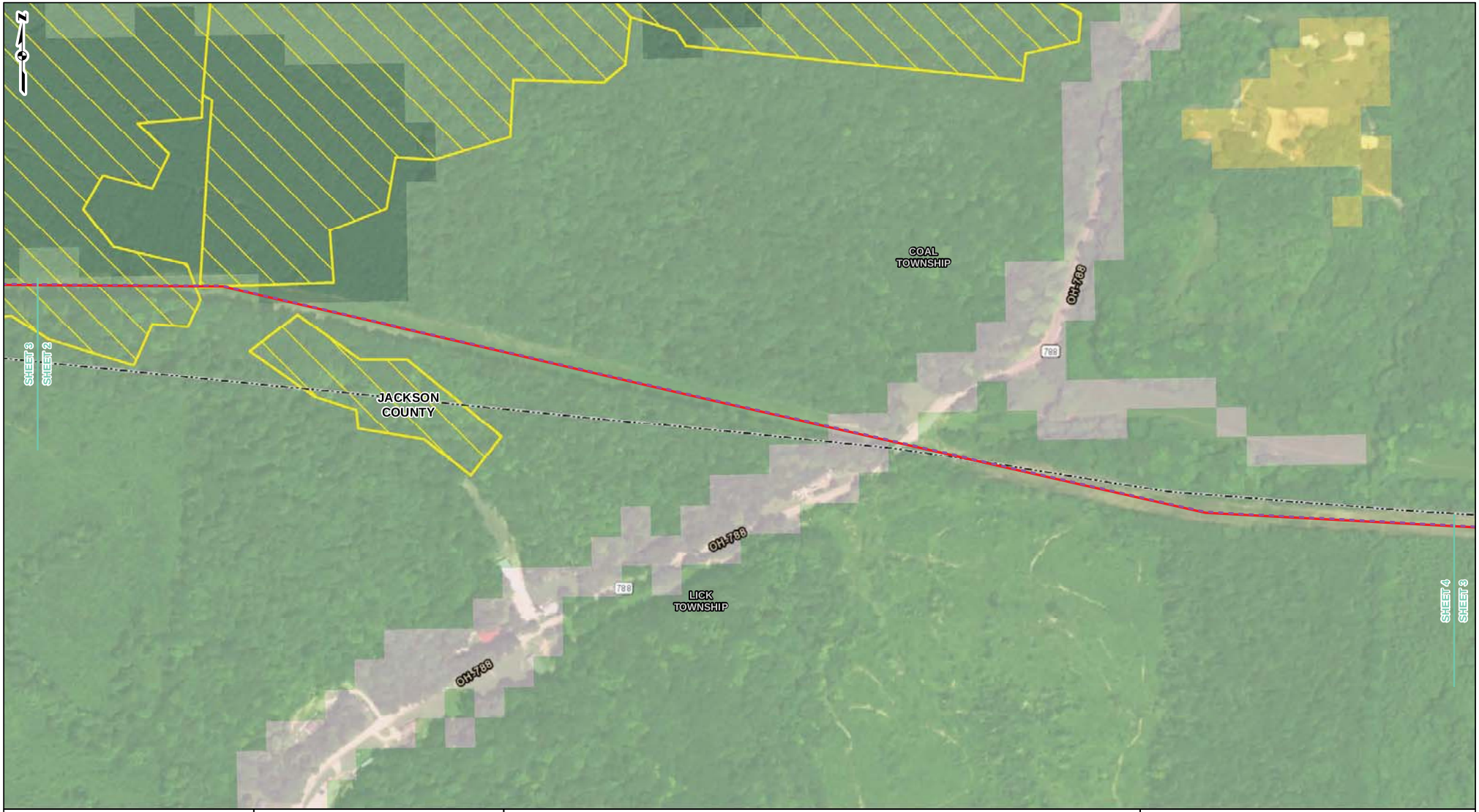

PROJECT LOCATION

JACKSON COUNTY, OHIO

REFERENCES: ESRI WORLD IMAGERY, MICROSOFT, UC - G, 2011, ACCESSED 11/2017. WORLD TRANSPORTATION, ESRI, DELORME, HERE, MAPMYINDIA, TOMTOM, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY, OBTAINED THROUGH ESRI ARCGIS ONLINE, ACCESSED 11/2017. NLCD POLYGONS: NATIONAL LAND COVER DATABASE (NLCD), 2011. ABANDONED MINES: ODNR (OHIO DEPARTMENT OF NATURAL RESOURCES), 2015.

LEGEND

- PROPOSED STATION
- PROPOSED 138kV TRANSMISSION LINE
- EXISTING 69kV TRANSMISSION LINE
- ABANDONED MINE
- TOWNSHIP BOUNDARY
- COUNTY BOUNDARY
- CITY BOUNDARY

NATIONAL LAND COVER DATABASE

- OPEN WATER
- HERBACEUOUS
- HAY/PASTURE
- EVERGREEN FOREST
- DEVELOPED, OPEN SPACE
- DECIDUOUS FOREST
- CULTIVATED CROPS

0 150 300 600 Feet

FIGURE 1.3
LAND USE MAP
SHEET 3 OF 6

HEPPNER-RHODES
138 kV TRANSMISSION LINE PROJECT
AEP OHIO TRANSMISSION COMPANY, INC.

DRAWN BY: AKW DATE: 11/14/2017
CHECKED: EFJ APPROVED: ARW

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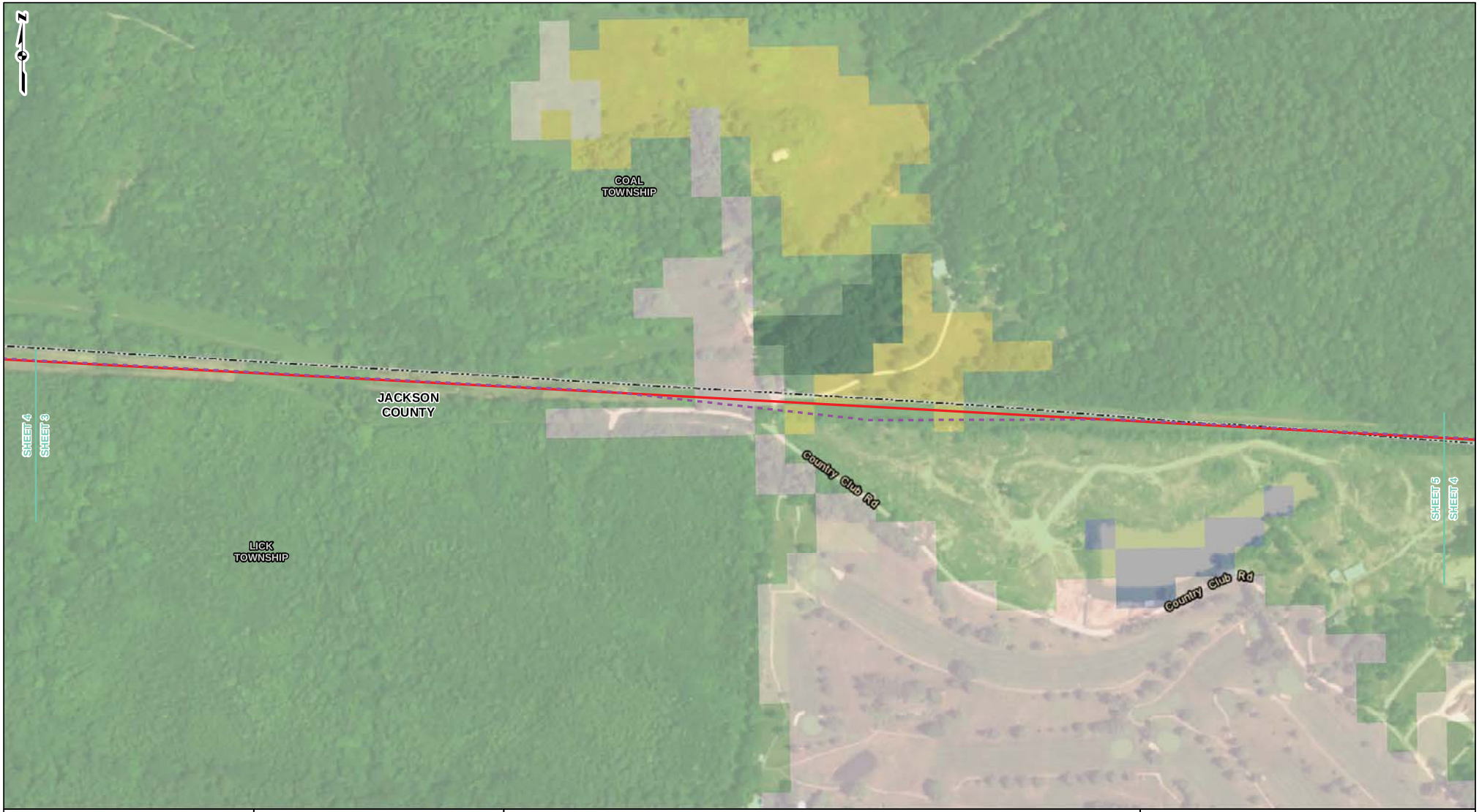

PROJECT LOCATION

JACKSON COUNTY, OHIO

REFERENCES: ESRI WORLD IMAGERY, MICROSOFT, UC - G, 2011, ACCESSED 11/2017. WORLD TRANSPORTATION, ESRI, DELORME, HERE, MAPMYINDIA, TOMTOM, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY, OBTAINED THROUGH ESRI ARCGIS ONLINE, ACCESSED 11/2017. NLCD POLYGONS: NATIONAL LAND COVER DATABASE (NLCD), 2011. ABANDONED MINES: ODNR (OHIO DEPARTMENT OF NATURAL RESOURCES), 2015.

LEGEND

- PROPOSED STATION
- PROPOSED 138kV TRANSMISSION LINE
- EXISTING 69kV TRANSMISSION LINE
- ABANDONED MINE
- TOWNSHIP BOUNDARY
- COUNTY BOUNDARY
- CITY BOUNDARY

NATIONAL LAND COVER DATABASE

- OPEN WATER
- HERBACEUOUS
- HAY/PASTURE
- EVERGREEN FOREST
- DEVELOPED, OPEN SPACE
- DECIDUOUS FOREST
- CULTIVATED CROPS

0 150 300 600 Feet

FIGURE 1.3
LAND USE MAP
SHEET 4 OF 6

HEPPNER-RHODES
138 kV TRANSMISSION LINE PROJECT
AEP OHIO TRANSMISSION COMPANY, INC.

DRAWN BY: AKW
DATE: 11/14/2017
CHECKED: EFJ
APPROVED: ARW

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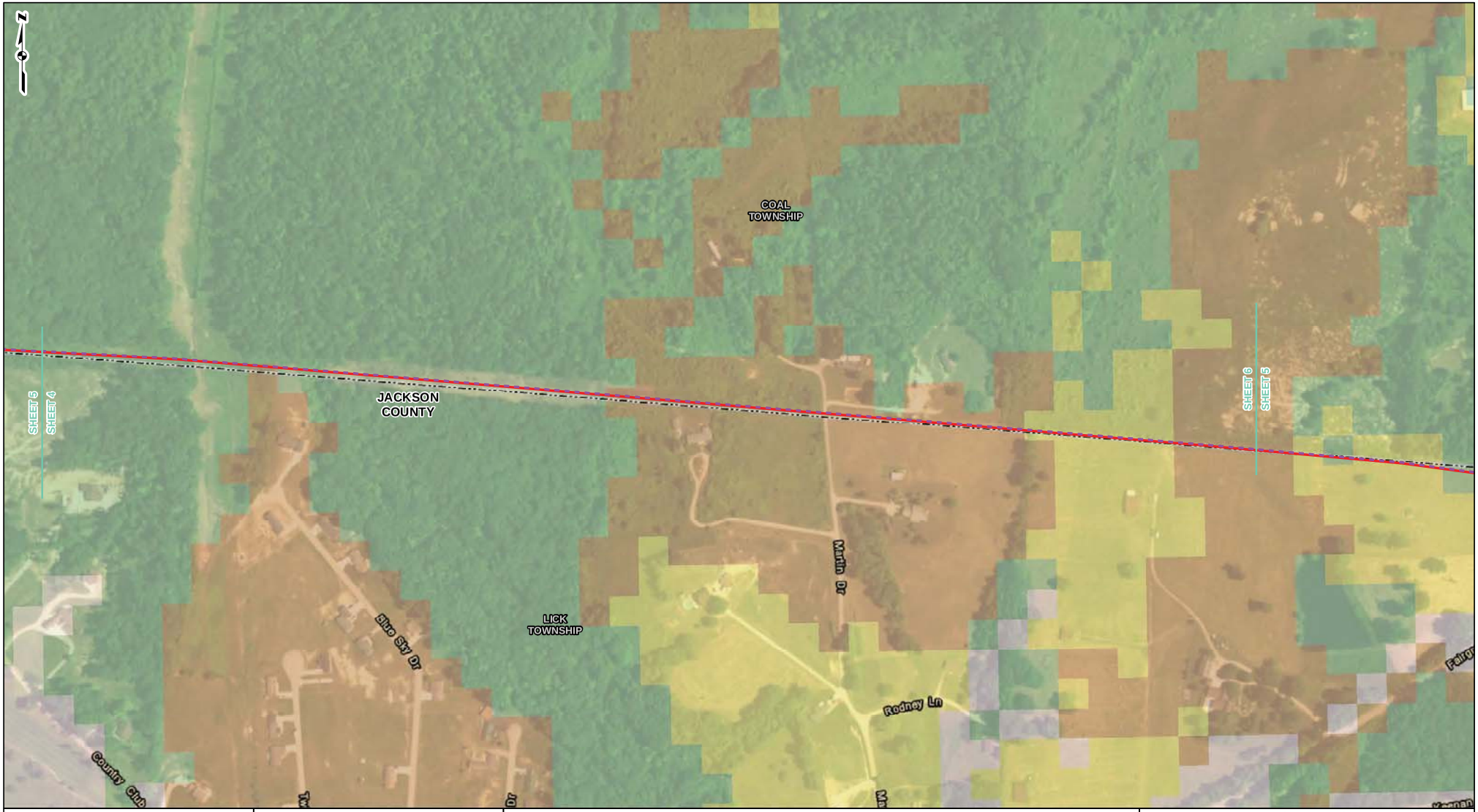

PROJECT LOCATION

JACKSON COUNTY, OHIO

REFERENCES: ESRI WORLD IMAGERY, MICROSOFT, UC - G, 2011, ACCESSED 11/2017. WORLD TRANSPORTATION, ESRI, DELORME, HERE, MAPMYINDIA, TOMTOM, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY, OBTAINED THROUGH ESRI ARCGIS ONLINE, ACCESSED 11/2017. NLCD POLYGONS: NATIONAL LAND COVER DATABASE (NLCD), 2011. ABANDONED MINES: ODNR (OHIO DEPARTMENT OF NATURAL RESOURCES), 2015.

LEGEND

- PROPOSED STATION
- PROPOSED 138kV TRANSMISSION LINE
- EXISTING 69kV TRANSMISSION LINE
- ABANDONED MINE
- TOWNSHIP BOUNDARY
- COUNTY BOUNDARY
- CITY BOUNDARY

NATIONAL LAND COVER DATABASE

- OPEN WATER
- HERBACEUOUS
- HAY/PASTURE
- EVERGREEN FOREST
- DEVELOPED, OPEN SPACE
- DECIDUOUS FOREST
- CULTIVATED CROPS

0 150 300 600 Feet

FIGURE 1.3
LAND USE MAP
SHEET 5 OF 6

HEPPNER-RHODES
138 kV TRANSMISSION LINE PROJECT
AEP OHIO TRANSMISSION COMPANY, INC.

DRAWN BY: AKW DATE: 11/14/2017
CHECKED: EFJ APPROVED: ARW

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PROJECT LOCATION

JACKSON COUNTY, OHIO

REFERENCES: ESRI WORLD IMAGERY, MICROSOFT, UC - G, 2011, ACCESSED 11/2017. WORLD TRANSPORTATION, ESRI, DELORME, HERE, MAPMYINDIA, TOMTOM, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY, OBTAINED THROUGH ESRI ARCGIS ONLINE, ACCESSED 11/2017. NLCD POLYGONS: NATIONAL LAND COVER DATABASE (NLCD), 2011. ABANDONED MINES: ODNR (OHIO DEPARTMENT OF NATURAL RESOURCES), 2015.

LEGEND

- PROPOSED STATION
- PROPOSED 138kV TRANSMISSION LINE
- EXISTING 69kV TRANSMISSION LINE
- ABANDONED MINE
- TOWNSHIP BOUNDARY
- COUNTY BOUNDARY
- CITY BOUNDARY

NATIONAL LAND COVER DATABASE

- OPEN WATER
- HERBACEUOUS
- HAY/PASTURE
- EVERGREEN FOREST
- DEVELOPED, OPEN SPACE
- DECIDUOUS FOREST
- CULTIVATED CROPS

0 150 300 600 Feet

FIGURE 1.3
LAND USE MAP
SHEET 6 OF 6

HEPPNER-RHODES
138 kV TRANSMISSION LINE PROJECT
AEP OHIO TRANSMISSION COMPANY, INC.

DRAWN BY: AKW DATE: 11/14/2017
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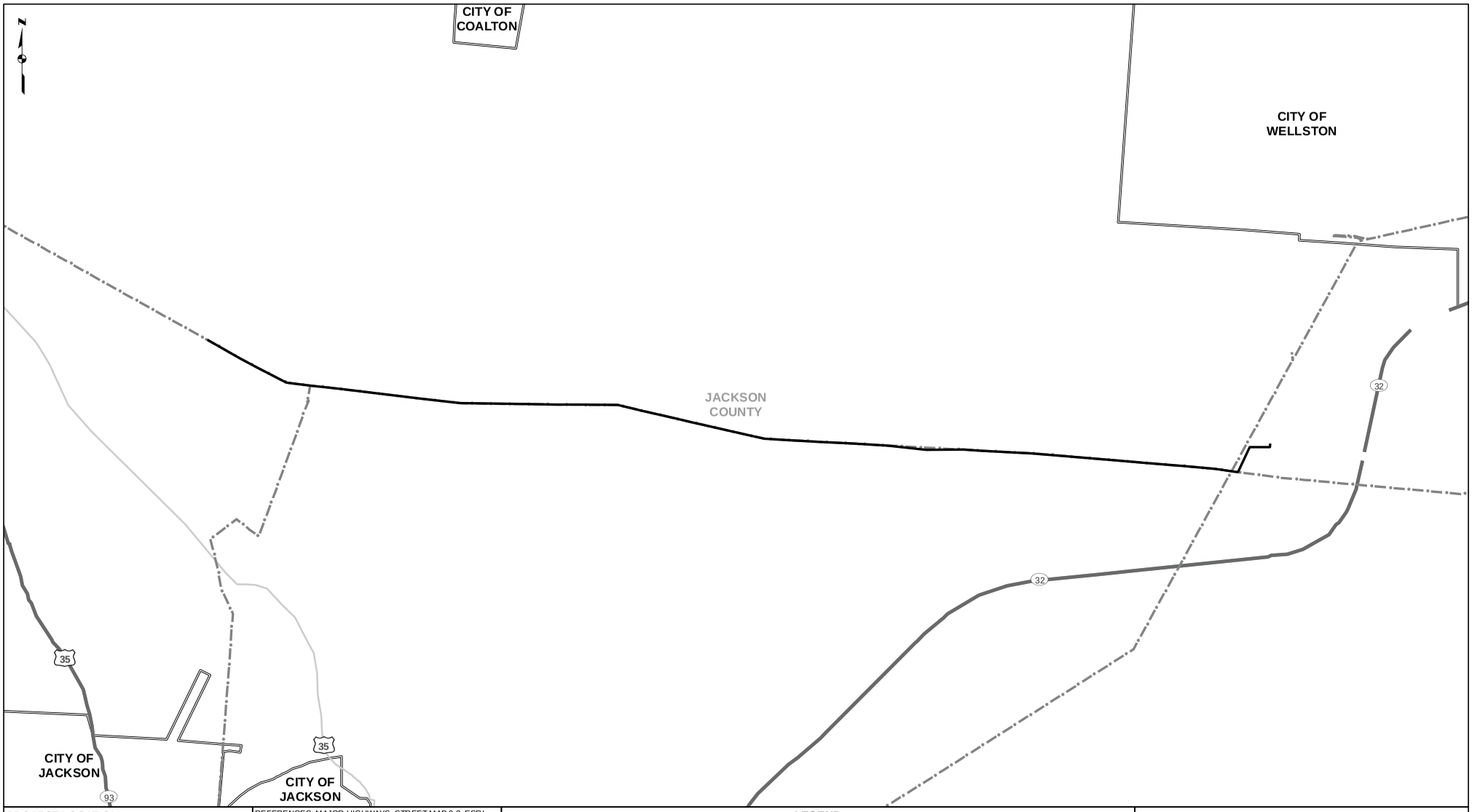

PROJECT LOCATION

JACKSON COUNTY, OHIO

REFERENCES: MAJOR HIGHWAYS, STREET MAP 9.3, ESRI, 2008, ACCESSED 11/2017.

LEGEND

- PROPOSED 138kV TRANSMISSION LINE
- EXISTING TRANSMISSION LINE
- COUNTY BOUNDARY
- CITY BOUNDARY

MAJOR HIGHWAYS

- LIMITED ACCESS
- HIGHWAY

0 1,000 2,000 4,000 Feet

FIGURE 1.4
CONCEPT MAP

HEPPNER-RHODES
138 kV TRANSMISSION LINE PROJECT
AEP OHIO TRANSMISSION COMPANY, INC.

DRAWN BY: AKW DATE: 11/13/2017
CHECKED: EFJ APPROVED: ARW

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HEPPNER - RHODES
138kV CIRCUIT

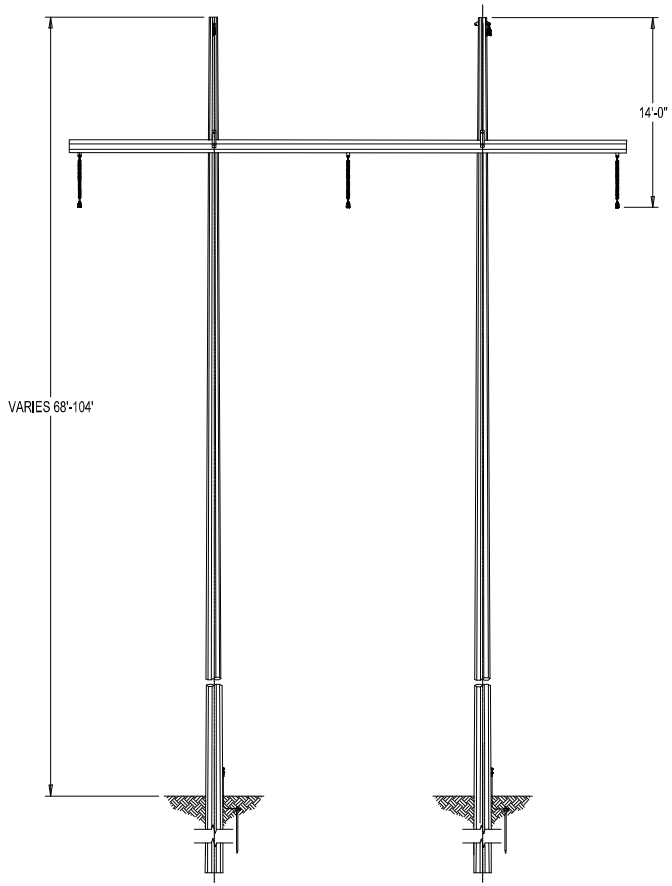

FIGURE 1
TYPICAL TANGENT STRUCTURE
TUBULAR STEEL H-FRAME
SUSPENSION INSULATOR

NOT TO SCALE

HEPPNER - RHODES
138kV CIRCUIT

* 1033.5 ACSR 54/7 "CURLEW"
** 7#10 AW7 ALUMOWELD

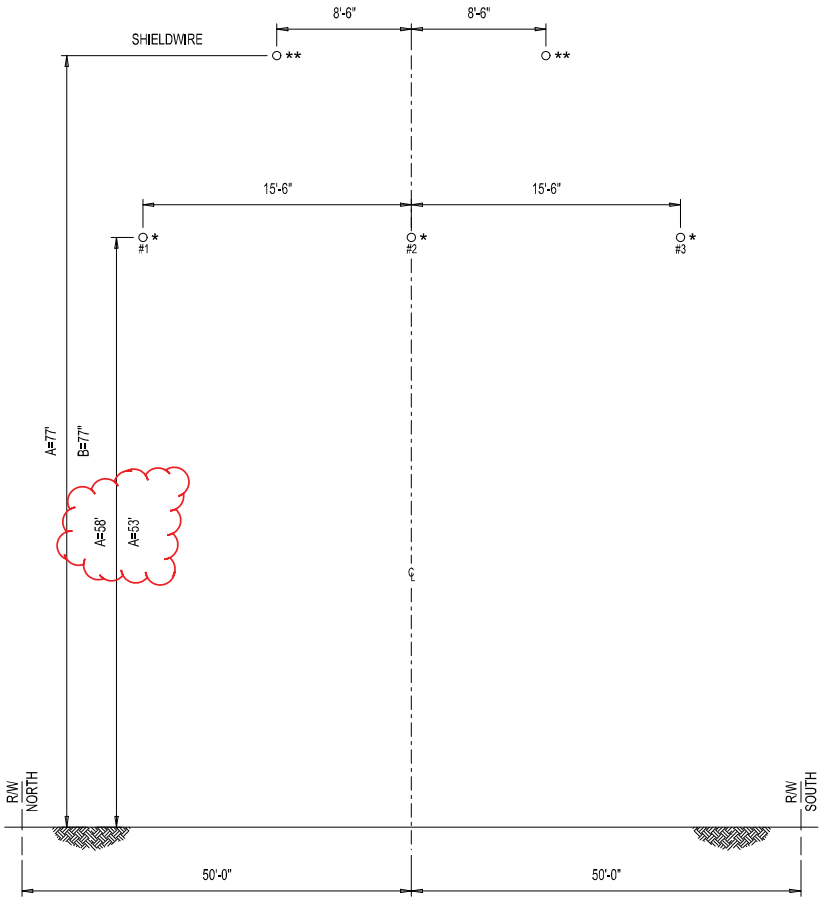

FIGURE 2
TYPICAL PHASE ARRANGEMENT
TUBULAR STEEL H-FRAME
SUSPENSION INSULATOR

DIM "A" - SINGLE CIRCUIT - HORIZONTAL CONFIGURATION (STEEL POLE)
(UNDER NORMAL MAX LINE AND WINTER NORMAL CONDUCTOR RATING) (120°F)
DIM "B" - SINGLE CIRCUIT - HORIZONTAL CONFIGURATION (STEEL POLE)
(UNDER EMERGENCY LINE LOADING) (M.O.T.)

NOT TO SCALE

REV	REVISION DESCRIPTION	DATE	BY

AEP AMERICAN ELECTRIC POWER

	ENG BY:	CHKD BY:	
	DRN BY:	APP BY:	
REG #:	DATE: 10/23/17	R/W MAP NO:	

AEP - OHIO TRANSMISSION COMPANY
HEPPNER - RHODES 138kV
TYPICAL TANGENT H-FRAME CONFIGURATION

EDMS:
DWG:
SHEET: 1 REV: 0

PLOTTED 11/3/2017 AT 2:24:03 PM

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Appendix B Phase I Archaeological Investigations Report

Phase I Archaeological Investigations for the Proposed 6.4 km (4.0 mi) Heppner-Rhodes 69kV/138kV Rebuild Project in Lick and Coal Townships, Jackson County, Ohio

Ryan J. Weller

September 14, 2017

1395 West Fifth Ave.
Columbus, OH 43212
Phone: 614.485.9435
Fax: 614.485.9439
Website: www.wellercrm.com

Phase I Archaeological Investigations for the Proposed 6.4 km (4.0 mi) Pine Ridge-Heppner 69kV/138kV Rebuild Project in Lick and Coal Townships, Jackson County, Ohio

By

Ryan J. Weller

Submitted By:

Weller & Associates, Inc.
1395 West Fifth Ave.
Columbus, OH 43212
Phone: 614.485.9435 Fax: 614.485.9439

Prepared For:

American Electric Power
700 Morrison Road
Gahanna, OH 43230

Lead Agency:

Ohio Power Siting Board

Ryan J. Weller, P.I.

September 14, 2017

W-2279

Abstract

In September 2017, Weller & Associates, Inc. conducted a Phase I Archaeological Investigation for the 6.4 km (4.0 mi) Heppner-Rhodes 69kV/138kV Rebuild Project in Liberty and Coal Townships, Jackson County, Ohio. These investigations were completed for American Electric Power for submittal to the lead agency, the Ohio Power Siting Board. A cultural resources management survey was deemed necessary to identify any sites or properties and to determine if they are significant similar to what would be eligible for the National Register of Historic Places (NRHP). Some of the area has been extensively disturbed in places from former construction activities. This document focuses on the archaeological aspect of the cultural resources survey; the history/architectural component is contained in separate and stand-alone document. These investigations were completed in accordance with the *Archaeology Guidelines* established by the Ohio State Historic Preservation Office [SHPO] (1994). These investigations identified three sites including 33JA0408-410.

The planned project involves rebuilding an existing electric line corridor and increase its output potential from a 69kV to a 138kV line. The project corridor is about 6.4 km (4.0 mi) long and the surveyed corridor was 30.5 m (100 ft) wide. The corridor extends through rolling, rural countryside that is to the north of the City of Jackson. Steeply sloping terrain is represented by the narrow ridges and associated side slopes that the project intercepts. The archaeological testing was limited by the steep nature of the terrain; however, it was important to inspected sloped areas for sensitive archaeological sites such as rock shelters.

The literature review that was conducted for this project indicated that there is one Mills (1914) site recorded in the vicinity and several others in neighboring settings. There are archaeological sites identified in the study area, but none that are relative to the project. Aspects of the project have been the subject of previous investigations, especially the western parts. Surveys for electric facilities account for both the western and eastern, part of the project, as well as a survey for county waterline infrastructure (Weller 2017a,b,c, and d). A survey for a pipeline corridor (Duerksen et al. 2000) intercepts the eastern part of the project, but briefly. None of the previous work identified any cultural resources that are relative to the current project. There are two cemeteries indicated, but they are not near the project.

The investigations resulted in the identification of three previously unrecorded archaeological sites, 33JA0408-410. These sites include temporally unassigned prehistoric period artifact scatters and a historic period component. These sites are not considered to be significant or indicative of landmarks. No further work is recommended for this project.

Table of Contents

List of Tables and Figures

List of Tables

List of Figures

Introduction

In September 2017, Weller & Associates, Inc. conducted a Phase I Archaeological Investigations for the 6.4 km (4.0 mi) Heppner-Rhodes 69kV/138kV Rebuild Project in Lick and Coal Townships, Jackson County, Ohio (Figures 1-3). American Electric Power (AEP) Ohio Transco requested the survey pursuant to the Ohio Power Siting Board (OPSB), the lead agency. A cultural resource management (CRM) survey was appropriate to identify any sites or properties that might be regarded as historically significant and to evaluate the effects of this project on such properties. Significance is relative to evaluation that is consistent with the National Register of Historic Places (NRHP) pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470 [36 CFR 800]). This report summarizes the results of the fieldwork and literature review. The report format and design is similar to that established in *Archaeology Guidelines* (Ohio Historic Preservation Office [OHPO] 1994).

The field reconnaissance for this project was conducted in the early part of September 2017. A literature review was completed on September 1, 2017 by Chad Porter. Josh Engle, Justin Fryer, Chris Goodrich, Brittany Vance, and Seth Cooper completed the field investigations. The report was prepared by Ryan Weller, with Chad Porter and Alex Thomas completing the figures.

Project Description

The planned project involves rebuilding an existing electric line corridor. The project corridor is about 6.4km (4.0 mi) long and the surveyed corridor will be 30.5 m (100 ft) wide. This will extend from the proposed Rhodes Station to the proposed Heppner Station in rural Jackson County. This is an existing electric line corridor that is being converted from a 69kV to a 138kV. This report addressed the archaeological aspect of the cultural resource management investigations.

Environmental Setting

Climate

Jackson County, like all of Ohio, has a continental climate with hot and humid summers and cold winters. About 104 cm (41 in) of precipitation falls annually on the county with over half (55 percent) falling from April through September (United States Department of Agriculture, Soil Conservation Service [USDA, SCS] 1985).

Physiography, Relief, and Drainage

Jackson County is located within the unglaciated plateau of southeastern Ohio; however, the central part of the county has been affected by ancient lacustrine valley/lake deposition (Brockman 1998; Pavey et al. 1999). The project area and most of Jackson County is contained within the Ironton Plateau. This is described as "Moderately high relief (300') dissected plateau; coarser grained coal-bearing rock sequences more common than in other regions of the Allegheny Plateau; common lacustrine clay-filled

Teays Valley remnants; elevation 515'-1060'" (Brockman 1998). The terrain through the surrounding region is generally rugged upland with narrow ridge tops and steep side slopes. The stream valleys tend to be entrenched; however, low terraces are present within the Kansan-age valley train. The project involves an electric line corridor that crosses through rugged terrain. The project area is drained by Horse Creek, some of its unnamed tributaries, Sugar Run, and Meadow Run, along with other unnamed tributaries of these drainages. These are all contained within the Scioto River watershed.

Geology

The underlying bedrock of most of Jackson County is associated with Pennsylvanian-age formations. The bedrock in the extreme northwestern corner is Mississippian-age formation. The project is contained within an area of Pennsylvanian-age carbonate rocks (Brockman 1998).

Soils

The project area is located within two soil associations including the Wharton-Rarden (upland elevations) and the Omulga-Piopolis (stream valley) associations. These soils are common through the rugged, upland settings and the valley situations that are in this region. There are 13 soil series types indicated in the project area with about 43.9 percent of the project indicated as being in steeply sloped settings. This is a noticeably high percentage of terrain that is steeply sloped (USDA, SCS 1985 (2017)).

Table 1. Soils within the project area.

Symbol	Soil Type	Slope percentage	Landform
ChD	Clymer loam	15-25	Side slopes
CkB	Clymer silt loam	3-8	Ridge tops
Omu1C1	Omulga silt loam	6-12	Ancient terraces
Or	Orrville silt loam	0-3	Upland floodplains
RrW1C2	Rarden-Wharton silt loams	8-15	Ridges and slopes
WeB, WeC	Wellston silt loam	3-8, 8-15	Ridges and side slopes
ShLZE1	Shelocta-Latham assoc.	steep	Side slopes
WhC, WhD	Wharton silt loam	8-15, 15-25	Ridges and side slopes
Wya1B1	Wyatt silt loam	2-6	Terraces
Wya3C2	Wyatt silty clay loam	6-12	Sloping areas
Wya3D2	Wyatt silty clay loam	12-18	Side slopes/margins

Flora

There is, or at least was, great floral diversity in Ohio. This diversity is relative to the soils and the terrain that generally includes the till plain, lake plain, terminal glacial margins, and unglaciated plateau (Forsyth 1970). Three major glacial advances, including the Kansan, Illinoisan, and Wisconsinan, have affected the landscape of Ohio.

The effects of the Wisconsin glaciation are most pronounced and have affected more than half of the state (Pavey et al. 1999).

The least diverse part of Ohio extends in a belt from the northeast below the lake-affected areas through most of western Ohio (Gordon 1966). These areas are part of the late Wisconsin ground moraine and lateral end moraines. It is positioned between the lake plains region and the terminal glacial moraines. This area included broad forested areas of beech maple forests interspersed with mixed oak forests in elevated terrain or where relief is greater (Forsyth 1970; Gordon 1966). Prairie environments such as those in Wyandot and Marion County areas would contain islands of forests, but were mostly expansive open terrain dominated by grasses.

The northwestern Ohio terrain is nearly flat because of ancient glacial lakes and glaciation, which affected the flora. However, the vegetation was more diverse than the till plain to the south and east because of the variety of factors that contributed to its terrain. Forests within the Black Swamp were generally comprised of elm/ash stands; however, dissected areas along drainages and drier, elevated areas from beach deposits would contain mixed forests of oak and hickory (Gordon 1966, 1969). There was little upland floral diversity in the lake plains (Black Swamp region) except for the occasional patches of oak and hickory. Floral variety was most evident in narrow sleeves along larger stream valleys where there is relief.

The most biological diversity in Ohio is contained within the Allegheny Plateau, which encompasses the southeastern two-thirds of the state (Sheaffer and Rose 1998). Because this area is higher and has drier conditions, it is dominated by mixed oak forests. Some locations within the central part of this area contain beech and mixed mesophytic forests. There are large patches of oak and sugar maple forests to the south of the terminal moraine from Richland to Mahoning County (Gordon 1966).

Southwestern Ohio from about Cincinnati to Bellefontaine east to the Scioto River historically contained a very diverse floral landscape. This is an area where moraines from three glacial episodes are prevalent (Pavey et al. 1999). Forests in this area include elm-ash swamp, beech, oak-sugar maple, mixed mesophytic, prairie grasslands, mixed oak, and bottomland hardwoods (Core 1966; Gordon 1966, 1969). These forest types are intermingled with prairies being limited to the northern limits of this area mostly in Clark and Madison Counties.

Generally, beech forests are the most common variety through Ohio and could be found in all regions. Oak and hickory forests dominated the southeastern Ohio terrain and were found with patchy frequency across most of northern Ohio. Areas that were formerly open prairies and grasslands are in glacial areas, but are still patchy. These are in the west central part of the state. Oak and sugar maple forests occur predominantly along the glacial terminal moraine. Elm-ash swamp forests are prevalent in glaciated areas including the northern and western parts of Ohio (Gordon 1966; Pavey et al. 1999). Central Jackson County, including the project area, is generally within what is considered to be a mixed oak forest area (Gordon 1966).

Fauna

The upland forest zone offered a diversity of mammals to the prehistoric diet. This food source consisted of white-tailed deer, black bear, Eastern cottontail rabbit, opossum, a variety of squirrels, as well as other less economically important mammals. Several avian species were a part of the upland prehistoric diet as well (i.e. wild turkey, quail, ruffed grouse, passenger pigeon, etc.). The lowland zone offered significant species as well. Raccoon, beaver, and muskrat were a few of the mammals, while wood duck and wild goose were the economically important birds. Fishes and shellfish were also an integral part of the prehistoric diet. Ohio muskellunge, yellow perch, white crappie, long nose gar, channel catfish, pike, and sturgeon were several of the fish, whereas, the Ohio naiad mollusc, butterfly's shell, long solid, common bullhead, knob rockshell, and cod shell were the major varieties of shellfish. Reptiles and amphibians, such as several varieties of snakes, frogs, and turtles, were also part of the prehistoric diet (Trautman 1981; Lafferty 1979; Mahr 1949).

Cultural Setting

The first inhabitants of Ohio were probably unable to enter this land until the ice sheets of the Wisconsin glacier melted around 14,000 B.C. Paleoindian sites are considered rare due to the age of the sites and the effects of land altering activities such as erosion. Such sites were mostly used temporarily and thus lack the accumulation of human occupational deposits that would have been created by frequent visitation. Paleoindian artifact assemblages are characteristic of transient hunter-gatherer foraging activity and subsistence patterns. In Ohio, major Paleoindian sites have been documented along large river systems and near flint outcrops in the Unglaciated Plateau (Cunningham 1973). Otherwise, Paleoindian sites in the glaciated portions of Ohio are encountered infrequently and are usually represented by isolated finds or open-air scatters.

The Paleoindian period is characterized by tool kits and gear utilized in hunting Late Pleistocene megafauna and other herding animals including but not limited to short-faced bear, barren ground caribou, flat-headed peccary, bison, mastodon, giant beaver (Bamforth 1988; Brose 1994; McDonald 1994). Groups have been depicted as being mobile and nomadic (Tankersley 1989); artifacts include projectile points, multi-purpose unifacial tools, burins, gravers, and spokeshaves (Tankersley 1994). The most diagnostic artifacts associated with this period are fluted points that exhibit a groove or channel positioned at the base to facilitate hafting. The projectiles dating from the late Paleoindian period generally lack this trait; however, the lance form of the blade is retained and is often distinctive from the following Early Archaic period (Justice 1987).

The Archaic period has been broken down into three sub-categories, including the Early, Middle, and Late Archaic. During the Early Archaic period (ca. 10,000-8000 B.P.), the environment was becoming increasingly arid as indicated by the canopy (Shane 1987). This period of dryness allowed for the exploitation of areas that were previously inaccessible or undesirable. The Early Archaic period does not diverge greatly from the

Paleoindian regarding the type of settlement. Societies still appear to be largely mobile with reliance on herding animals (Fitting 1963). For these reasons, Early Archaic artifacts can be encountered in nearly all settings throughout Ohio. Tool diversity increased at this time including hafted knives that are often re-sharpened by the process of beveling the utilized blade edge and intense basal grinding (Justice 1987). There is a basic transition from lance-shaped points to those with blades that are triangular. Notching becomes a common hafting trait. Another characteristic trait occurring almost exclusively in the Early and Middle Archaic periods is basal bifurcation and large blade serrations. Tool forms begin to vary more and may be a reflection of differential resource exploitation. Finished tools from this period can include bifacial knives, points, drills/perforators, utilized flakes, and scrapers.

The Middle Archaic period (8000-6000 B.P.) is poorly known or understood in archaeological contexts within Ohio. Some (e.g., Justice 1987) regard small bifurcate points as being indicative of this period. Ground stone artifacts become more prevalent at this time. Other hafted bifaces exhibit large side notches with squared bases, but this same trait can extend back to the Paleoindian period. The climate at this time is much like that of the modern era. Middle Archaic period subsistence tended to be associated with small patch foraging that involved a consistent need for mobility with a shift towards stream valleys (Stafford 1994). Sites encountered from this time period throughout most of Ohio tend to be lithic scatters or isolated finds. The initial appearance of regional traits may be apparent at this time.

The Late Archaic period in Ohio (ca 6000-3000 B.P.) diverges from the previous periods in many ways. Preferred locations within a regional setting appear to have been repeatedly occupied. The more intensive and repeated occupations often resulted in the creation of greater social and material culture complexity. The environment at this time is warmer and drier. Most elevated landforms in northeastern Ohio have yielded Archaic artifacts (Prufer and Long 1986: 7), and the same can be stated for the remainder of Ohio.

Various artifacts are diagnostic of the Late Archaic period. Often, burial goods provide evidence that there was some long-distance movement of materials, while lithic materials used in utilitarian assemblages are often from a local chert outcrop. There is increased variation in projectile point styles that may reflect regionalism. Slate was often used in the production of ornamental artifacts. Ground and polished stone artifacts reached a high level of development. This is evident in such artifacts as grooved axes, celts, bannerstones, and other slate artifacts.

It is during the Terminal Archaic period (ca 3500-2500 B.P.) that extensive and deep burials are encountered. Cultural regionalism within Ohio is evident in the presence of Crab Orchard (southwest), Glacial Kame (northern), and Meadowood (central to Northeastern). Along the Ohio River, intensive occupations have been placed within the Riverton phase. Pottery makes its first appearance during the Terminal Late Archaic.

The Early Woodland period (ca 3000-2100 B.P.) in Ohio is often associated with the Adena culture and the early mound builders (Dragoo 1976). Early and comparably

simple geometric earthworks first appear with mounds more spread across the landscape. Pottery at this time is thick and tempered with grit, grog, or limestone; however, it becomes noticeably thinner towards the end of the period. There is increased emphasis on gathered plant resources, including maygrass, chenopodium, sunflower, and squash. Habitation sites have been documented that include structural evidence. Houses that were constructed during this period were circular, having a diameter of up to 18.3 m (Webb and Baby 1963) and often with paired posts (Cramer 1989). Artifacts dating from this period include leaf-shaped blades with parallel to lobate hafting elements, drilled slate pieces, ground stone, thick pottery, and increased use of copper. Early Woodland artifacts can be recovered from every region of Ohio.

The Middle Woodland period (ca 2200-1600 B.P.) is often considered to be equivalent with the Hopewell culture. The largest earthworks in Ohio date from this period. There is dramatic increase in the appearance of exotic materials that appear most often in association with earthworks and burials. Artifacts representative of this period include thinner, grit-tempered pottery, dart-sized projectile points (Lowe Flared, Steuben, Snyders, and Chesser) [Justice 1987], exotic materials (mica, obsidian, and marine shell, etc.). The points are often thin, bifacially beveled, and have flat cross sections. There seems to have been a marked increase in the population as well as increased levels of social organization. Middle Woodland sites seem to reflect a seasonal exploitation of the environment. There is a notable increase in the amount of Eastern Agricultural Complex plant cultigens, including chenopodium, knotweed, sumpweed, and little barley. This seasonal exploitation may have followed a scheduled resource extraction year in which the populations moved camp several times per year, stopping at known resource extraction loci. Middle Woodland land use appears to center on the regions surrounding earthworks (Dancey 1992; Pacheco 1996); however, there is evidence of repeated occupation away from earthworks (Weller 2005a). Household structures at this time vary with many of them being squares with rounded corners (Weller 2005a). Exotic goods are often attributed to funerary activities associated with mounds and earthworks. Utilitarian items are more frequently encountered outside of funerary/ritual contexts. The artifact most diagnostic of this period is the bladelet, a prismatic and thin razor-like tool, and bladelet cores. Middle Woodland remains are more commonly recovered from central Ohio south and lacking from most areas in the northern and southeastern part of the state.

The Late Woodland period (ca A.D. 400-900) is distinct from the previous period in several ways. There appears to be a population increase and a more noticeable aggregation of groups into formative villages. The villages are often positioned along large streams, on terraces, and were likely seasonally occupied (Cowan 1987). This increased sedentism was due in part to a greater reliance on horticultural garden plots, much more so than in the preceding Middle Woodland period. The early Late Woodland groups were growing a wide variety of crop plants that are collectively referred to as the Eastern Agricultural Complex. These crops included maygrass, sunflower, and domesticated forms of goosefoot and sumpweed. This starch and protein diet was supplemented with wild plants and animals. Circa A.D. 800 to 1000, populations adopted maize agriculture, and around this same time, shell-tempered ceramics appear. Other

technological innovations and changes during this period included the bow and arrow and changes in ceramic vessel forms.

The Late Prehistoric period (ca A.D. 1000-1550) is distinctive from former periods. The Cole complex (ca A.D. 1000-1300) has been identified in central and south-central Ohio. Sites that have been used to define the Cole complex include the W.S. Cole (33DL11), Ufferman (33DL12), and Decco (33DL28) sites along the Olentangy; the Zencor Village site, located along the Scioto River in southern Franklin County; and the Voss Mound site (33FR52), located along the Big Darby Creek in southwestern Franklin County. It has been suggested that this cultural manifestation developed out of the local Middle Woodland cultures and may have lasted to be contemporaneous with the Late Prehistoric period (Barkes 1982; Baby and Potter 1965; Potter 1966). Cole is a poorly defined cultural complex as its attributes are a piecemeal collection gathered from various sites. Some have suggested that it may be associated with the Fort Ancient period (Pratt and Bush 1981). Artifacts recovered from sites considered as Cole include plain and cordmarked pottery, triangular points, Raccoon Notched points, chipped slate discs, rectangular gorgets, and chipped stone celts. The vessels often have a globular form with highly variable attributes and rim treatment. There have been few structures encountered from this period, but those that have are typically rounded or circular (Pratt and Bush 1981; Weller 2005b).

Monongahela phase sites date to the Late Prehistoric to Contact period in eastern Ohio. Monongahela sites are typically located on high bottomlands near major streams, on saddles between hills, and on hilltops, sometimes a considerable distance from water sources. Most of these sites possessed an oval palisade, which surrounded circular house patterns. Burials of adults are usually flexed and burial goods are typically ornamental. A large variety of stone and bone tools are found associated with Monongahela sites. Monongahela pottery typically is plain or cordmarked with a rounded base and a gradually in-sloping shoulder area. Few Euro-American trade items have been found at Monongahela sites (Drooker 1997).

Protohistoric to Settlement

By the mid-1600s, French explorers traveled through the Ohio country as trappers, traders, and missionaries. They kept journals about their encounters and details of their travels. These journals are often the only resource historians have regarding the early occupants of seventeenth century Ohio. The earliest village encountered by the explorers in 1652 was a Tionontati village located along the banks of Lake Erie and the Maumee River. Around 1670, it is known that three Shawnee villages were located along the confluence of the Ohio River and. the Little Miami River. Because of the Iroquois Wars, which continued from 1641-1701, explorers did not spend much time in the Ohio region, and little else is known about the natives of Ohio during the 1600s. Although the Native American tribes of Ohio may have been affected by the outcome of the Iroquois Wars, no battles occurred in Ohio (Tanner 1987).

French explorers traveled extensively through the Ohio region from 1720-1761. During these expeditions, the locations of many Native American villages were documented. In 1751, a Delaware village known as Maguck existed near present-day Chillicothe. In 1758, a Shawnee town known as 'Lower Shawnee 2' existed at the same location. The French also documented the locations of trading posts and forts, which were typically established along the banks of Lake Erie or the Ohio River (Tanner 1987).

While the French were establishing a claim to the Ohio country, many Native Americans were also entering new claims to the region. The Shawnee were being forced out of Pennsylvania because of English settlement along the eastern coast. The Shawnee created a new headquarters at Shawnee Town, which was located at the mouth of the Scioto River. This headquarters served as a way to pull together many of the tribes which had been dispersed because of the Iroquois Wars (Tanner 1987).

Warfare was bound to break out as the British also began to stake claims in the Ohio region by the mid-1700s. The French and Indian War (1754-1760) affected many Ohio Native Americans; however, no battles were recorded in Ohio (Tanner 1987). Although the French and Indian War ended in 1760, the Native Americans continued to fight against the British explorers. In 1764, Colonel Henry Bouquet led a British troop from Fort Pitt, Pennsylvania to near Zanesville, Ohio.

In 1763, the Seven Years' War fought between France and Britain, also known as the French and Indian War ended with The Treaty of Paris. In this Peace of Paris, the French ceded their claims in the entire Ohio region to the British. When the American Revolution ended with the Second Treaty of Paris in 1783, the Americans gained the entire Ohio region from the British; however, they designated Ohio as Indian Territory. Native Americans were not to move south of the Ohio River but Americans were encouraged to head west into the newly acquired land to occupy and govern it (Tanner 1987).

By 1783, Native Americans had established fairly distinct boundaries throughout Ohio. The Shawnee tribes generally occupied southwest Ohio, while the Delaware tribes stayed in the eastern half of the state. Wyandot tribes were located in north-central Ohio, and Ottawa tribes were restricted to northeast Ohio. There was also a small band of Mingo tribes in eastern Ohio along the Ohio River, and there was a band of Mississauga tribes in northeastern Ohio along Lake Erie. The Shawnee people had several villages within Ross County along the Scioto River (Tanner 1987). Although warfare between tribes continued, it was not as intense as it had been in previous years. Conflicts were contained because boundaries and provisions had been created by earlier treaties.

In 1795, the Treaty of Greenville was signed as a result of the American forces defeat of the Native American forces at the Battle of Fallen Timbers. This allocated the northern portion of Ohio to the Native Americans, while the southern portion was opened for Euro-American settlement. Although most of the battles which led up to this treaty did not occur in Ohio, the outcome resulted in dramatic fluctuations in the Ohio region.

The Greenville Treaty line was established, confining all Ohio Native Americans to northern Ohio, west of the Tuscarawas River (Tanner 1987).

Ohio Native Americans were again involved with the Americans and the British in the War of 1812. Unlike the previous wars, many battles were fought in the Ohio country during the War of 1812. By 1815, peace treaties began to be established between the Americans, British, and Native Americans. The Native Americans lost more and more of their territory in Ohio. By 1830, the Shawnee, Ottawa, Wyandot, and Seneca were the only tribes remaining in Ohio. These tribes were contained on reservations in northwest Ohio. By the middle 1800s, the last of the Ohio Native Americans signed treaties and were removed from the Ohio region.

Jackson County History

The major draw to the area that would become Jackson County was undeniably the salt licks that outcropped there. The Shawnee Indians knew of them as did the mound building cultures before them. Daniel Boone and Jonathan Alder visited the salt works with their Indian captors in the 1770s and 1780s. Europeans knew of the salt there as evidenced by their placement on a map as early as 1755 (Howe 1888; Jones and Jenkins 1953; Morrow 1956; Williams 1900; Willard 1916).

With the secession of the Indian claims on the Ohio Territory in 1795, the land was properly owned by the Federal Government. When Washington County was established in 1788, most of the area of modern Jackson County fell into what was then called Lick Township. During this period, squatters at the licks controlled the area as a rowdy bunch of saltmakers. With the influx of legal settlement around the licks, beginning in 1795, an attempt to dispel these troublemakers became an obvious necessity for progress. A new county, with local law was the conclusion of the local landowners. They petitioned the state through Senator Robert Lucas, who had lived and worked at the licks, and the petition became law in 1816 (Howe 1888; Jones and Jenkins 1953; Morrow 1956; Williams 1900; Willard 1916). The time between saw little progress because of the lawlessness of the squatters at the salt mines. With little organization, there was little care for the benefit of the whole. John Knight built a grist mill about 1799, but no other commercial business existed in the region save the salt business which was run by crude individuals. There were legal farmers and squatting salt miners. One group of the salt renderers were well known counterfeiters as well, operating there until the time of county organization; then were forced out of Jackson, fleeing west (Willard 1916).

Some progress did take place at the settlement known as Poplar Row. The area's first two roads had been newly built in 1804 and a post office established the same year. The post office was named Salt Lick until it was changed in 1817 to Jackson Court House. That year, the village of Jackson was platted. Sometime around 1806, George L. Crookham taught the only school in the area, and in 1819, the Baptists built the first church. Under the organization of the county, all lands at the salt licks were gathered from Federal control to that of Jackson, and the sale of which to be opened up. The

proceeds were specifically to be used for the erection of county buildings and schools (Howe 1888; Morrow 1956; Willard 1916).

As mining salt was the industry of the county, it was inevitable that the other raw materials of Jackson would also be discovered with the increasing population of the 1820s and 1830s. There was a great migration of Welsh who arrived in the 1820s. Coal outcropped and was used personally since the earliest occupation of the county. George Riegel opened the first coal mine in 1823. Iron was discovered in the 1830s and Rogers, Hurd, & Co. built the first furnace in Jackson County in 1836, the Jackson Furnace. Jackson's Iron industry would last almost as long as her coal. These industries, of course, were catapulted to the forefront of county significance with the addition of railroad shipping, which began with the Scioto and Hocking Valley Railroad in 1853. Pit mining for coal originated here in 1861 (Morrow 1956; Willard 1916).

During the Civil War, Jackson was visited by Morgan's Raiders, but the skirmish was slight and little more than hoof prints were left to bear witness. One man was killed and a mill burnt, but as they passed through in the night, there was little resistance and then they were gone (Jones and Jenkins 1953; Willard 1916).

The towns of Wellston, Oak Hill, and Coalton were each established after the Civil War; Wellston in 1874, Oak Hill in 1880, and Coalton near that later date. Wellston became a city, but the other two remain villages. The rest of the county is rural (Howe 1888; Morrow 1956; Willard 1916).

By 1888, Jackson was the largest coal producing county in Ohio, but by 1907, the Wellston seam began to show exhaustion. As ever, mining continued, but in another way. Firebrick clay and cement manufacture gained in importance, subsidizing the recession of the county's coal industry. However, nothing could replace it and the county slipped into decline. The population has changed very little over the past hundred years (Morrow 1956; Willard 1916).

Lick Township History

The history of Lick Township is so interwoven with the history of Jackson County and Jackson City that it would be redundant to rewrite it here. The township was formed in 1803 while a part of Ross County and at that time included all of present Coal, Jackson, Liberty, Lick, Scioto, and Washington Townships of Jackson County. It has been trimmed with the erection of each of these other townships. It is in this township that the City of Jackson is located, and as such it has lost that portion of its land. The remaining township is almost entirely privately owned rural residential land (Williams 1900; Willard 1916).

Coal Township History

Coal was not one of the original five townships of Jackson County. Those included the townships of Bloomfield, Franklin, Lick, Madison and Milton. Later

boundary adjustments which affected the county lines, included the establishment of Coal township in 1881 (Howe 1888). Population centers which became prominent within Coal include Wellston and Coalton. Established in 1876, Wellston is ten miles northeast of Jackson and is partially contained within Coal township. Named after its founder Henry Wells, the community was initially laid out in 1873 on land purchased from H.S. Bundy (Howe 1888). Coalton, located centrally within the township, was formally incorporated in 1876. Significant population numbers were reached by 1887, with some estimates at five thousand (Howe 1888; Williard 1916).

As the namesake of the township suggests, coal mining was an important function of these communities. Coal mining and the addition of the steel industry of nearby Jackson turned the region into an important industrial center. The Wellston coal seam became a major producer as one of four within Jackson County. With the introduction of railroads, coal shipped from the county had grown to beyond 300,000 tons by 1880 (Howe 1888).

Coal township no longer enjoys the economic benefit of major resource extraction activities. Largely rural, with Coalton as a small unincorporated community with under five hundred residents, Coal Township no longer contains its former economic prestige.

Research Design

The purpose of a Phase I survey is to locate and identify cultural resources that will be affected by the planned electric line rebuild project. This includes archaeological deposits that are older than 50 years. The architectural component is in a separate report. Once these resources are identified and sampled, they are evaluated for their eligibility or potential eligibility to the NRHP. These investigations are directed to answer or address the following questions:

1) Did the literature review reveal anything that suggests the project area had been previously surveyed, and what is the relationship of previously recorded properties to the project area?
2) Are cultural resources likely to be identified in the project area?

These questions are addressed in the text that follows the literature review.

Archaeological Field Methods

The survey conducted within the project area was generally limited to subsurface testing methods and visual inspection. Surface collection was not possible due to the ground cover.

Shovel test unit excavation. Shovel test units were placed at 15-m intervals where adequate surface visibility was lacking. These measure 50 cm on a side and are excavated to 5 cm below the topsoil/subsoil interface. Individual shovel test units are documented regarding their depth, content and color (Munsell). Wherever

sites are encountered, Munsell color readings are taken per shovel test unit. All of the undisturbed soil matrices from shovel test units are screened using .6 cm hardware mesh. When sites are identified, additional shovel test units will be excavated at 7.5 m intervals extending on grid and in the four cardinal directions from the positive locations.

Shovel probe excavation. Shovel probes were excavated during these investigations to document the extent of the disturbances. These probes were excavated similarly to shovel test units or to the point that disturbance could be clearly determined. They typically have the dimensions of 50 cm on a side, but are not screened. They were excavated at 15-m intervals and to a depth of 15-20 cm or deep enough to establish lack of soil integrity.

Visual inspection. Locations where cultural resources were not expected, such as disturbed areas and wet areas were walked over and visually inspected. Surface exposed/disturbed areas were inspected. This method was used to verify the absence or likelihood of any cultural resources being located in these areas. This method was also utilized to document the general terrain and the surrounding area.

The application of the resulting field survey methods was documented in field notes, field maps, and project plan maps.

Historic Period Artifact Analysis

The artifacts recovered during these investigations will be inventoried and analyzed. The inventory will be specific to type and age if the artifact is temporally diagnostic. The functional inventory of the site will be similar to that of South (1977) where artifacts are segregated into categories such as kitchen, arms, architecture, and etcetera. South's (1977) theoretical approach also emphasizes the development and interpretation of artifact patterns found at sites. This method can be used to understand depositional patterning on the intra- and inter-site level. Ball (1984) modified this approach, making it applicable for use in the Ohio Valley.

Artifacts recovered from the subsurface testing will be inventoried and the results analyzed to identify differential patterning of functionally specific artifact groups within areas of high and low artifact density. The specific historic period temporal affiliation of the artifacts will be determined by relative dating. The identification of historic artifacts for purposes of determining age is guided by ceramic/artifact analyses or source books by Carskadden et al. (1985); Cushion (1980); Dalrymple (1989); Deiss (1981); Esary (1982); Ewins (1997); Greer (1981); Hughes and Lester (1981); Hume (1991); Lang (1995); Majewski and O'Brien (1987); Mansberger (1981); Manson and Snyder (1997); McConnell (1992); McCorvie (1987); Miller (1987); Newman (1970); Ramsay (1976); Sonderman (1979); Spargo (1926); Sprague (2002); Stelle (2001); Sunbury (1979); Sussman (1977); Visser (1997); and Zimler (1987).

Prehistoric Artifact Analysis

An artifact inventory was accomplished upon completion of the fieldwork. This involved identifying the functional attributes of individual artifacts, as well as the artifact cluster(s) or site assemblage collectively. The prehistoric artifact types and material were identified during the inventory process. The lithic artifact categories are modeled after Flenniken and Garrison (1975) and include the following:

Biface. A biface is defined as an artifact that has been culturally modified on two faces (ventral and dorsal). Complete and fragmentary preforms, manufacturing rejects, projectiles, or knives are included in this category.

Blocky Irregular. These are chunks and amorphous chert fragments that are produced during core reduction. These frequently occur during the creation of a striking platform or by accident. They represent a transitional core reduction stage similar to that of primary thinning.

Broken Flake. This flake type is common. Flakes for this investigation are considered broken when diagnostic attributes (e.g., flake scarring or platform) are absent from the artifact. Therefore, a flake that is broken in half and retains the platform is considered complete because the function can be ascertained regardless of its obvious fragmentary nature.

Celt. These artifacts are typically polished/ground stone pieces that are likely to have been used for cutting/dismembering/hammering. It is common for these to have a bit and poll end to serve as a duel function. They were often hafted and used like a modern hatchet.

Core. A core represents the initial stage of chert procurement and reduction. A core has evidence of flake removal or checking present to delineate that the object has been culturally modified. Cores can be recovered from bedded outcrops or gathered from alluvial and glacial deposits.

Potlid. These artifact types are reflective of accidental overheating of chert (Luedtke 1992). Small semi-circular fragments of chert pop off a flake or artifact during firing or through fortuitous deposition in a hearth. Potlids lack a striking platform but are indicative of thermal activity at a site. One should use caution when using these artifacts to interpret or recreate site formation processes because they can occur during post-depositional activities.

Pottery. This is typically recovered as fired clay sherds that are tempered with various materials. It is used for cooking vessels, storage, transport, or for serving. However, sherds are generally fragile and decompose with exposure and plowing.

Primary Decortication Flake. This flake type represents the initial reduction of a core. Generally, these flakes have a natural patina or cortex over most of the dorsal side and are void of other flake scars. Artifact assemblages with chert resources obtained from bedded resources usually do not have decortication flakes of any kind because there is no patina/cortex formation.

Primary Thinning Flake. This flake type represents a transitional mode of chert reduction. The intent of this reduction activity is to reduce a core to a crude biface. Flakes have a steep platform angle (i.e., >65°) and lack cortex. However, occasional small remnants of cortex are prevalent at this point, especially on the striking platform.

Secondary Decortication Flake. These flakes occur as a by-product of patina/cortex removal of a core. They are differentiated from the previous flake type by a lesser amount of cortex evident on the dorsal side and at least one or part of one previous flake scar. These flakes have steep flake platform angles (>75°).

Secondary Thinning Flake. These flake types represent a reduction mode that is a direct result of the previous reduction activities (i.e., primary thinning). Soft, antler billet percussion and pressure flaking are used for this mode of reduction. At this point, the chert artifact being reduced or thinned is a biface rather than a core. The striking platform for this flake type is commonly represented by the edge of the biface. The platform angle is typically acute but can range from 30° to 65°. Previously removed flake scars are common on the dorsal side.

Sharpening Flake. These flake types are created during pressure flaking of a tool edge. The flakes are often very small with a tiny platform and are often conical. They are also created from reworking a tool edge after it has been dulled from use.

Shatter or Angular Shatter. These artifacts most frequently occur during percussion flake reduction of cores. These artifacts lack striking platforms, are thin, narrow, and triangular. They cannot be definitively associated with a specific functional category of chert reduction due to their ubiquity.

Uniface. A uniface only has evidence of use-wear on one side of the artifact. Unifacial artifacts include utilized flakes, end and side scrapers, and bladelets. However, bladelets are typically categorized as blades or lamellar flakes and are diagnostic of the Middle Woodland period.

Identification of the material type of individual artifacts is based on several attributes, including color, inclusions, and luster. Several resources were used to aid in

the inventory of the material types, including Converse (1994), DeRegnaucourt and Georgiady (1998), and Stout and Schoenlaub (1945).

Curation

There were archaeological deposits identified during these investigations. The landowners will be forwarded information regarding the ultimate disposition of the materials identified from these sites. The artifacts were observed at the surface within a rock shelter. Notes and maps affiliated with this project will be maintained at Weller & Associates, Inc. files.

Literature Review

The literature review study area is defined as a 305 m (1,000 ft) radius from the boundaries of the project. In conducting the literature review, the following resources were consulted at SHPO, at the Columbus Metropolitan Library, at the State Library of Ohio, and from various online resources:

1) *An Archeological Atlas of Ohio* (Mills 1914);
2) SHPO United States Geological Survey (USGS) 7.5' series topographic maps;
3) Ohio Archaeological Inventory (OAI) files;
4) Ohio Historic Inventory (OHI) files;
5) National Register of Historic Places (NRHP) files;
6) SHPO consensus Determinations of Eligibility (DOE) files;
7) SHPO CRM/contract archaeology files; and
8) Jackson County atlases, histories, historic USGS 15'series topographic map(s), and current USGS 7.5' series topographic map(s);
9) Online Genealogical and Cemetery Records.

A review of *An Archeological Atlas of Ohio* (Mills 1914) was conducted and there are resources located in the project's vicinity (Figure 4). The closest of these is near the western end and likely on an elevation overlooking the east side of Horse Creek. The other resources are mounds and some of which are demarked as being already excavated.

A review of the SHPO topographic maps indicated that there are two sites that are in the study area. Site 33JA0274 is interestingly interpreted as a geometric hilltop or ridge top enclosure that has been destroyed. This is at the southern edge of the study area. Site 33JA0016 is on an old terrace within the Horse Creek Valley and on a church parcel that is south of the project corridor. Neither of these sites are located within the project corridor or its immediate vicinity.

Table 2. Archaeological (OAI) sites recorded in the study area.

Site Number	Site Name	Temporal Association	*Landform*	*Site Size*
JA0016	Columbia Chapel Site	Unassigned Prehistoric	Stream valley	50

JA0274	Destroyed earthwork location; earthen enclosure	Unknown Woodland	Hill or ridge top	400

The Ohio Historic Inventory (OHI) files indicated that there are no relative resources indicated in the study area.

A review of the NRHP files and determinations of eligibility files indicated that there are no resources within or adjacent the project area. There are no such resources located in the study area of the project area.

Weller has conducted recent archaeological investigations for this project that include current aspects of the project area. These have all been subject to OHC review and are all located in the western part of the current project area (Weller 2017a, b, c). These investigations did not identify any significant sites in the vicinity of the project area (Figure 2). The eastern terminus of the project area was previously investigated for the Rhodes Station (Weller 2017d); there were no significant resources identified by any of the previous surveys. There have been two other surveys that intercept the project's study area (Duerksen et al. 2000; Baker and Bratt 1998). Duerksen et al.'s survey (2000) is for a pipeline corridor that briefly intercepts the project; Baker and Bratt's survey (1998) was conducted just east of Rhodes Station area. Neither of these surveys identified any archaeological sites in the project or study area.

Cartographic/atlas resources were reviewed for the project area. According to the *Atlas of Jackson County, Ohio* (Lake 1875) the project's corridor was largely contained in open, undeveloped areas that are north of the City of Jackson. The USGS *1913 Jackson, Ohio 15 Minute Series (Topographic)* map indicates that the corridor crosses through upland conditions that are lowly populated. There are structures in the vicinity, but none that are clearly within the project corridor (Figure 5). The USGS *1995 Jackson, and 1995 Wellston, Ohio 7.5 Minute Series (Topographic)* maps indicate few structures in the project vicinity (Figure 2).

There are two cemeteries indicated within the study area including Exline and Keenan-Lively-Sullivan cemeteries. Neither of these are in close proximity to the project and they will not be involved in any of the project plans.

Evaluation of Research Questions 1 and 2

There were two questions presented in the research design that will be addressed at this point. These are:

1) Did the literature review reveal anything that suggests the project area had been previously surveyed?
2) Are cultural resources likely to be identified in the project area?

There have been many sites identified in Jackson County by Mills (1914), and there are several sites that are indicated in the project corridor's vicinity. There is a

mound indicated in the immediate proximity of the western terminus and several other mounds (some excavated) nearby. Otherwise, there are few sites identified in the project's study area. This is a sensitive region, especially where rock shelters are located though these appear to be more prevalent to the west of the project. Additionally, part of the project area was the subject of previous investigations. Sites would not be unexpected from landforms overlooking the valley areas and where flatter terrain is present.

Fieldwork Results

The field investigations for this project were conducted in the early part of September (5^{th}-11^{th}), 2017. The weather was not a factor in the completion of the work, it was hot and humid to mild and unexpectedly cool. These investigations involved subsurface methods of investigation and visual inspection. The project is a linear electric line corridor that cuts in an east-west manner through the upland, unglaciated terrain of north-central Jackson County. Many situations were found to be poorly suited for testing due to steeply sloping conditions and, to a lesser degree, disturbances. There are some locations within the project's corridor that were the subject of previous investigations and these were inspected. These archaeological investigations resulted in the identification and of three archaeological sites including 33JA0408-410.

Visual inspection was conducted throughout the project corridor. This was to account for any rock shelters, identify landforms (such as benches) that might be testable and within the corridor, and test the suitable areas. There were no rock shelters or situations where rocky outcrops were identified through this project corridor or its abutting terrain. Steeply sloping conditions were identified through much of this project. The project corridor traverses rolling, upland conditions and the majority of the investigated area is contained in fallow and tall weed conditions. These electric line corridors are maintained, the foliage is cut every several years and it is often consistent with a scrub land environment that is bracketed by forestation and other differential conditions. The field crew were alerted to the possibility of identifying unknown mounds that might existing in this setting. Visual inspection was accomplished through the area to verify their absence in this setting. There were no mounds identified during these investigations.

Severe disturbances were a minimal inhibitor of archaeological testing. Expectedly, there were road right-of-way situations that were identified with associated underground utilities or ditches that were found to be severely disturbed. There were areas that were observed and shovel probed where there was no topsoil present (Figures 6-12). Severely mottled and disturbed soils were identified that are indicative of grading activity for development and/or mining related activity. This does not account for a sizeable part of the overall project area. Shovel probes were excavated as necessary and pertinent during these investigations to document the extent and nature of the disturbed areas.

Previous investigations have been conducted that are involved in this project, especially the western part nearer Horse Creek. These were conducted for electric line and station projects (Figure 2) and a waterline project. These previous investigations were conducted by Weller (2017a, b, c, and d). These previous investigations did not result in the identification of any significant archaeological deposits. There are no previously identified sites involved in the project area. Duerken et al. (2000) conducted investigations for a pipeline corridor that is near Structure 25. This is a brief intercept of the current project and there were no sites identified by this survey that are in the study area.

At the time of survey, the project corridor involved fallow conditions and there were no locations where surface collection methods were applicable. Subsurface testing was the primary means of physical archaeological investigations that were conducted for this project. However, this testing was very limited by the rugged nature of the setting. Testing and visual inspection of exposed areas noted that the topsoil in many locations was very shallow to non-existent. Subsoil and exfoliated bedrock residuum were noted at the surface in several locations. However, deeper topsoil deposits were identified in the valley situations and on the occasional terrace or bench that was investigated. Most of the testing was conducted on ridge tops and side slopes where the slope percentage was less than 15 percent. A shovel test unit was excavated in a valley situation that identified a distinctive and clear plowzone at a depth of 32 cm below ground surface. The soils in that are grayish brown silt loam (10YR4/2) and the subsoils are dark yellowish brown silty clay loam (10YR4/6) (Figure 28). The interface was often abrupt, clear, and obvious. There is a noticeable increase in the amount of clay in the subsoil and it is very dense. There were 215 shovel test units and 1 shovel probes excavated during these investigations. This method of testing was conducted wherever suitable conditions allowed and where bare ground visibility was insufficient for surface collection/inspection. All of the archaeological sites were identified during the subsurface testing including 33JA0408-410.

Archaeological Site Descriptions

These investigations resulted in the identification of three archaeological sites including 33JA0408-410. These are prehistoric period lithic scatters and one historic period/prehistoric period site. The following is a description of these sites relative to these investigations and the project corridor.

33JA0408

This site is a prehistoric period lithic scatter that was identified during shovel test unit excavation (Figure 6). The materials were identified from what was likely a former agricultural field that has since been left fallow as they were identified from plowzone context. The site is located in the Southeast Quarter of Section 12, Coal Township. It is located on a toe ridge that extends in a southwest-northeast direction. This is northwest of Fairgreens Road and west of Sandhill Road. This site is drained by an unnamed tributary of Meadow Run, this is part of the Scioto River watershed. The artifacts from

this site were identified from three shovel test units that are 22.8 m apart, the site size is considered to be 22.8 sq m in size.

There were three artifacts identified from this site (Table 3). The material assemblage is exclusive to Upper Mercer chert. The artifacts that are flakes and are indicative of core and bifacial reduction activity. These are not regarded as being temporally diagnostic.

This site was evaluated for its eligibility for the NRHP. This site lacks integrity (Little et al. 2000:39-43; U.S. Department of the Interior, National Park Service [USDI, NPS] 1997:44-45) and the ability to yield further and important information regarding prehistory. The site has a numerically and functionally limited, and diffuse artifact assemblage. It lacks temporally diagnostic material. This site is not considered to be eligible for inclusion into the NRHP, and further work is not deemed necessary.

Table 3. Artifact Inventory for sites 33JA0408-410.

Site	Provenience	Bag	Artifact	Material	Count
JA408	STP 1, N Radial	1	Primary Thinning Flake	Upper Mercer	1
	STP 1	2	Secondary Thinning Flake	Upper Mercer	1
	STP 2	3	Secondary Thinning Flake	Upper Mercer	1
JA409	STP 2 E. Radial	4	Plain Whiteware	Ceramic	1
			Clear Bottle Glass	Glass	1
			Flint Bottle Glass	Glass	1
	STP 1	5	Primary thinning flake	Upper Mercer	2
			Secondary thinning flake	Upper Mercer	3
			Plain whiteware	Ceramic	7
			Opaque glass	Glass	1
			Flint bottle glass	Glass	1
			Clear bottle glass	Glass	1
	STP 2	6	Plain whiteware	Ceramic	2
			Albany slip stoneware	Ceramic	1
			Clear bottle glass	Glass	1
			Point Pleasant Pipe Stem	Ceramic	1
	STP 3	7	Plain whiteware	Ceramic	5
			Clear bottle glass	Glass	1
	STP 1, S. Radial	8	Plain whiteware	Ceramic	2
			Clear bottle glass	Glass	2

JA410	STP 1, W. Radial	9	Primary thinning flake	Upper Mercer	1
	STP 1, N. Radial	10	Secondary thinning flake	Upper Mercer	1
	STP 1, E. Radial	11	Secondary thinning flake	Upper Mercer	1
	STP 1	12	Secondary thinning flake	Upper Mercer	1

33JA0409

This site is a prehistoric and historic period artifact scatter that was identified during subsurface testing methods (Figure 6). The artifacts were identified from a series of shovel test unit and from within plowzone-depth context; the excavation of radial shovel test units were used to further enhance an understanding of this site. The site is located on a ridge top or saddle situation that extends in an easterly direction. The site is located at the Section 12 and 13 line that separates Lick and Coal Townships. This site is drained by an unnamed tributary of Meadown Run, this is part of the Scioto River watershed. The site size is considered to be 374 sq m, the dimensions of the site are 18 m north-south by 22.8 m east-west.

Atlas inspection indicates that this site is nearby the boundary of properties that were owned by Beverly Keaman (south) Bundy & Cobb (north) (Everts 1875). There are buildings indicated on either parcel at this time. Inspection of the 15-minute atlas further indicates no residences at this location circa 1913.

There were 28 historic period artifacts identified from this site (Table 3). The majority of the artifacts are affiliated with kitchen-related materials such as ceramic wares or bottle glass. There was one Point Pleasant pipe stem identified, which were manufactured from about 1830-1890 (Sunbury 1979). The majority of the assemblage is of plain whiteware. Most of the materials lack any distinctive qualities that allow them to be categorized into a specific temporal period.

The prehistoric period assemblage includes 5 Upper Mercer artifacts identified from this site (Table 3). These are indicative of core and bifacial reduction activity. None of these artifacts are regarded as being temporally diagnostic.

This site was evaluated for its eligibility for the NRHP. This site lacks integrity (Little et al. 2000:39-43; U.S. Department of the Interior, National Park Service [USDI, NPS] 1997:44-45) and the ability to yield further and important information regarding the prehistory or history of this area. The site has a numerically and functionally limited, and diffuse artifact assemblage, and is limited to plowzone contexts. This site is not considered to be eligible for inclusion into the NRHP, and further work is not deemed necessary.

33JA0410

This site is a prehistoric period lithic scatter that was identified during shovel test unit excavation (Figure 6). The materials were identified from what was likely a former agricultural field that has since been left fallow as they were identified from plowzone context. The site is located in the Southeast Quarter of Section 12, Coal Township. It is located on a ridge top that gradually slopes to the east. This is northwest of Fairgreens Road and west of Sandhill Road. This site is drained by an unnamed tributary of Meadow Run, this is part of the Scioto River watershed. The artifacts were identified from four shovel test units and the site size is considered to be 15.2 sq m.

There were four artifacts identified from this site (Table 3). The material assemblage is exclusive to Upper Mercer chert. The artifacts that are flakes and are indicative of core and bifacial reduction activity. These are not regarded as being temporally diagnostic.

This site was evaluated for its eligibility for the NRHP. This site lacks integrity (Little et al. 2000:39-43; U.S. Department of the Interior, National Park Service [USDI, NPS] 1997:44-45) and the ability to yield further and important information regarding prehistory. The site has a numerically and functionally limited, and diffuse artifact assemblage. It lacks temporally diagnostic material. This site is not considered to be eligible for inclusion into the NRHP, and further work is not deemed necessary.

APE Definition and NRHP Determination

The APE is a term that must be applied on an individual project basis. The nature of the project or undertaking is considered in determining the APE. This may include areas that are off the property or outside of the actual project's boundaries to account for possible visual impacts. When construction is limited to underground activity, the APE may be contained within the footprint of the project area. The archaeological APE for this project includes the footprint of the project and a limited area surrounding it as this document is pertinent to the archaeological component of the cultural resources investigation.

The project is an existing electric line corridor that cuts in an east-west manner through upland terrain. This is north of the City of Jackson. Much of the project corridor was found to be contained in steeply sloping conditions; however, visual inspection was accomplished through the corridor to verify the conditions as well as determine if there are any rock shelters in the area. The field investigations identified three archaeological sites, 33JA0408-410. These are not considered to be significant cultural deposits and they include prehistoric period lithic scatters and a historic period component.

In consideration of the archaeological aspect of the CRM investigations, the project is not considered to affect any significant archaeological deposits or landmarks. No further archaeological work is considered to be necessary for this project.

Recommendations

In September 2017, Weller & Associates, Inc. conducted a Phase I Archaeological Investigations for the 6.4 km (4.0 mi) Heppner-Rhodes 69kV/138kV Rebuild Project in Lick and Coal Townships, Jackson County, Ohio. These archaeological investigations involved subsurface testing and visual inspection. The survey resulted in the identification of three archaeological sites that are artifact scatters identified in plowzone contexts, 33JA0408-410. These sites are not considered to be significant or landmarks and no further archaeological work is considered to be necessary for this project.

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2005b *Data Recovery at the Knowlton Site (33DL1450) Located in Liberty Township, Delaware County, Ohio*. Weller & Associates. Submitted to the Delaware County Sanitary Engineer's Office. Copy available for review at the Ohio History Connection.

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Figures

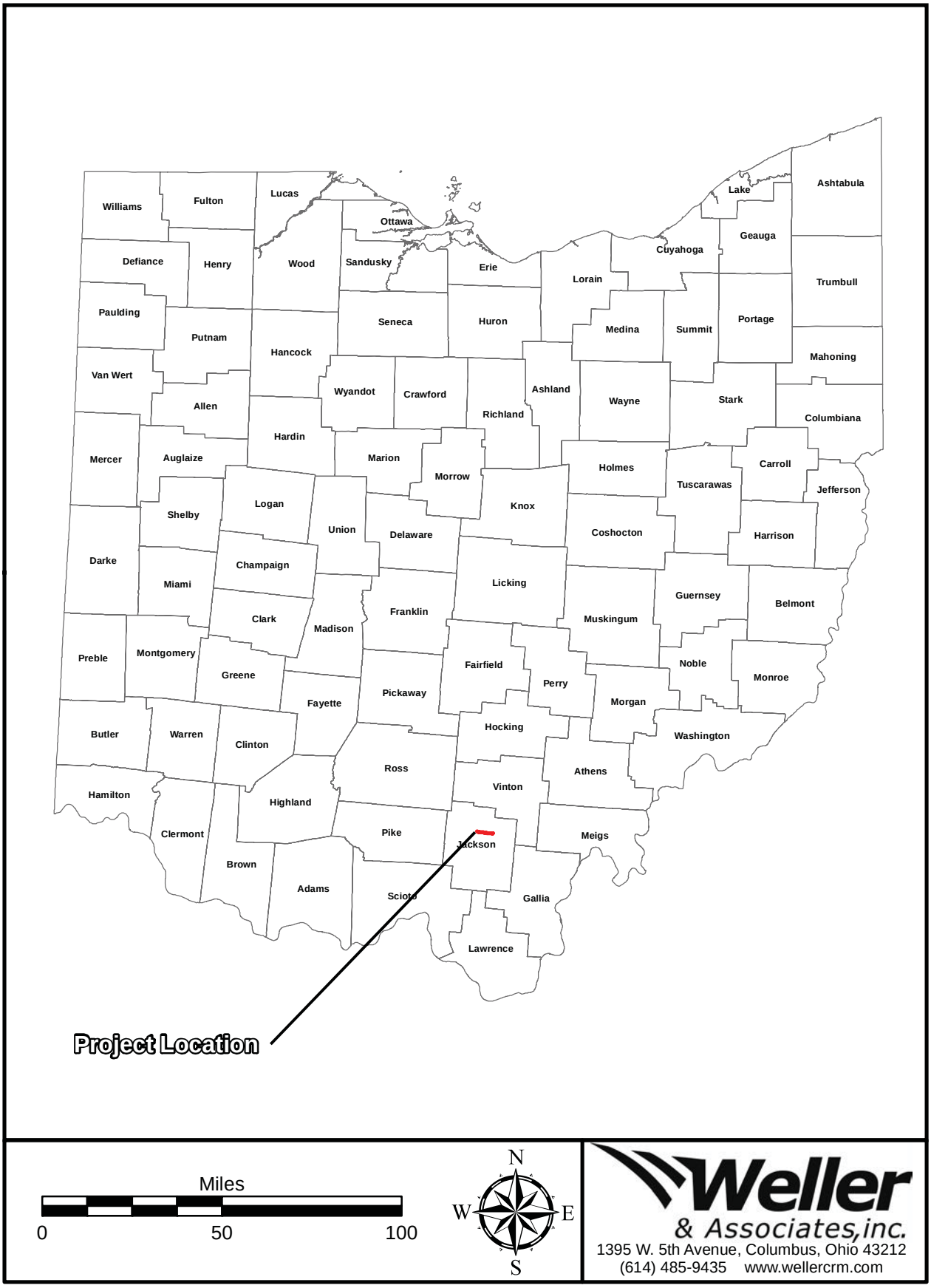

Figure 1. Political map of Ohio showing the approximate location of the project.

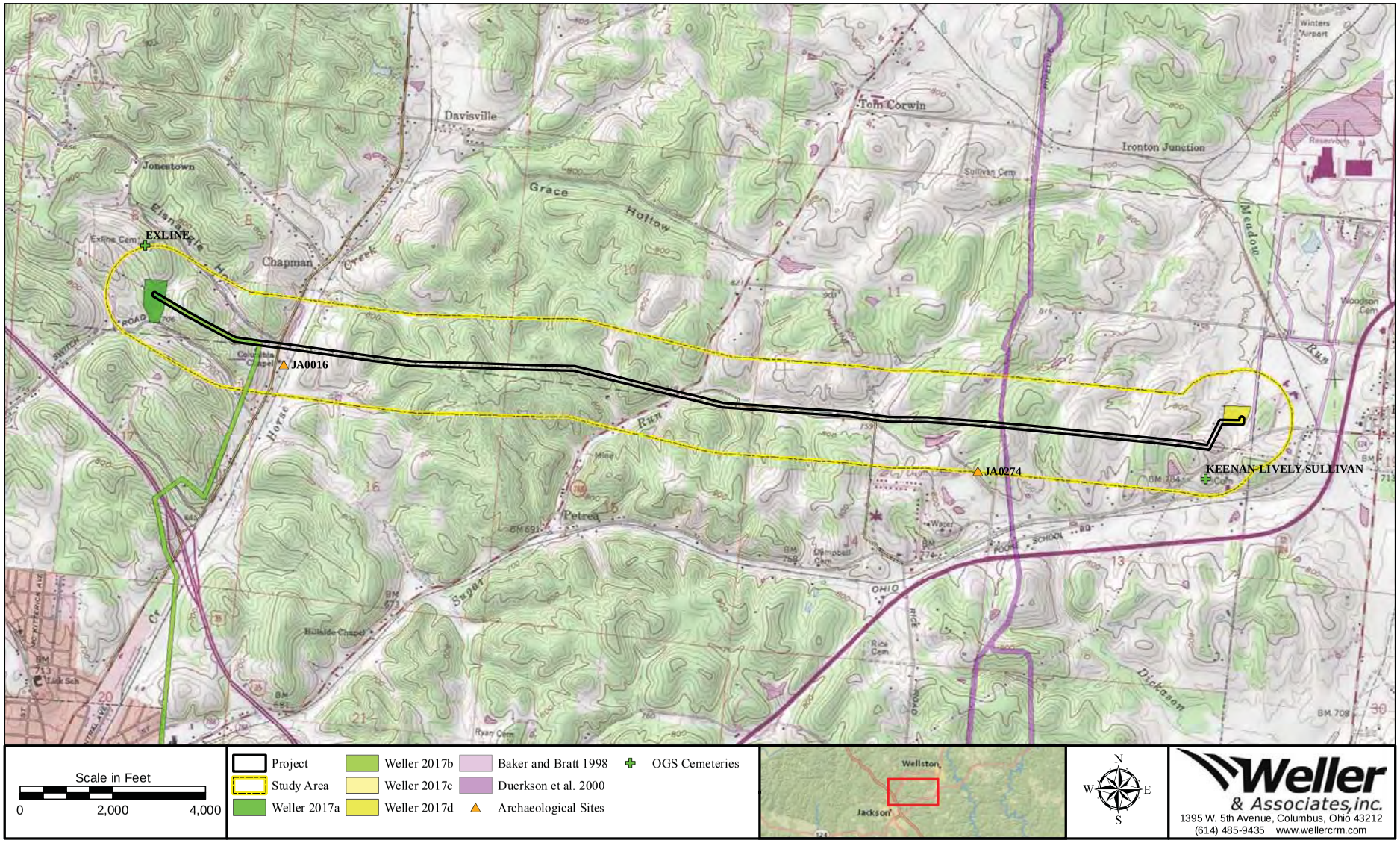

Figure 2. Portions of the USGS *1978 Jackson and the 1977 Wellston, Ohio 7.5 Minute Series (Topographic)* maps indicating the location of the project and previously recorded resources in the study area.

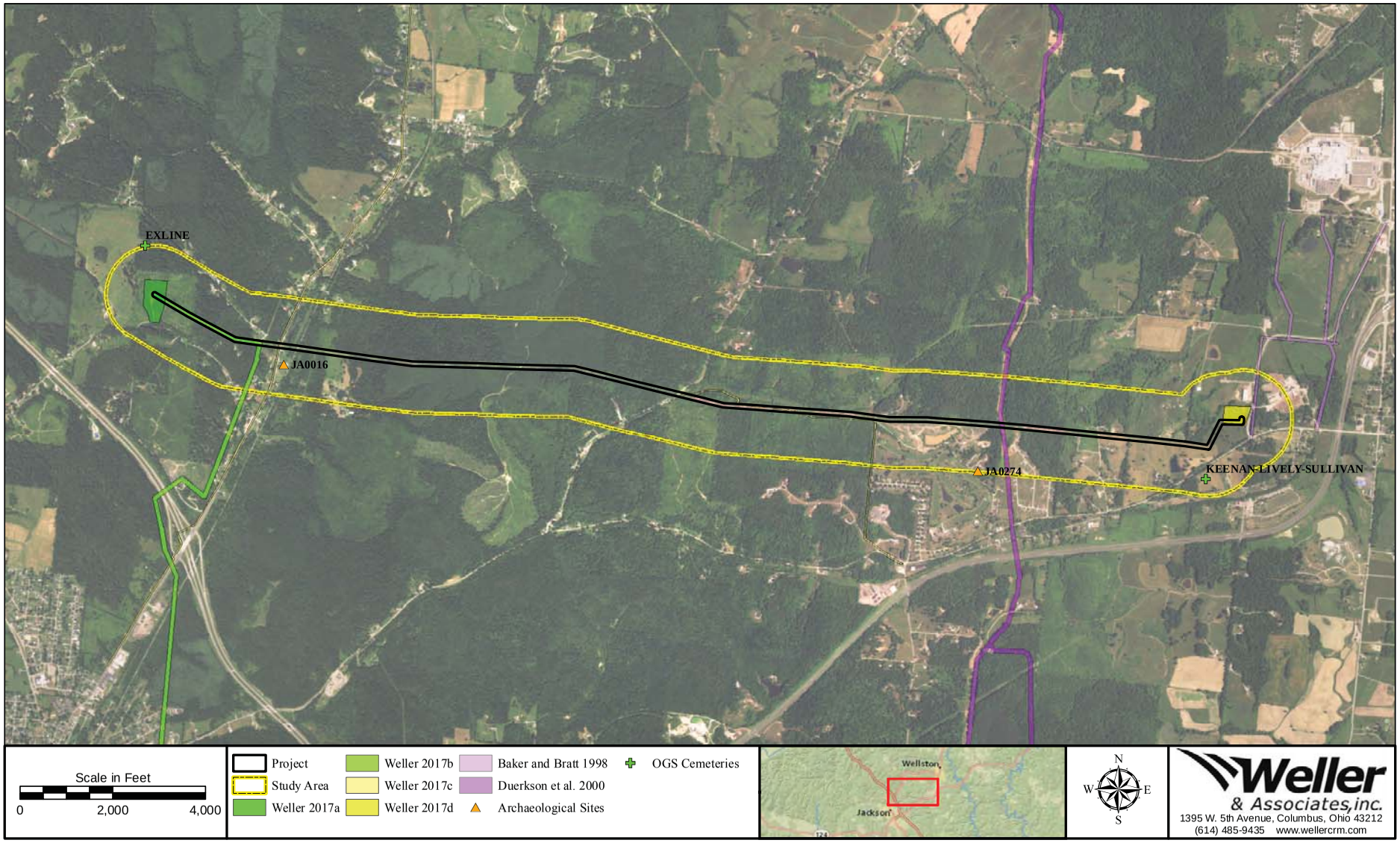

Figure 3. Aerial map indicating the location of the project and previously recorded resources in the study area.

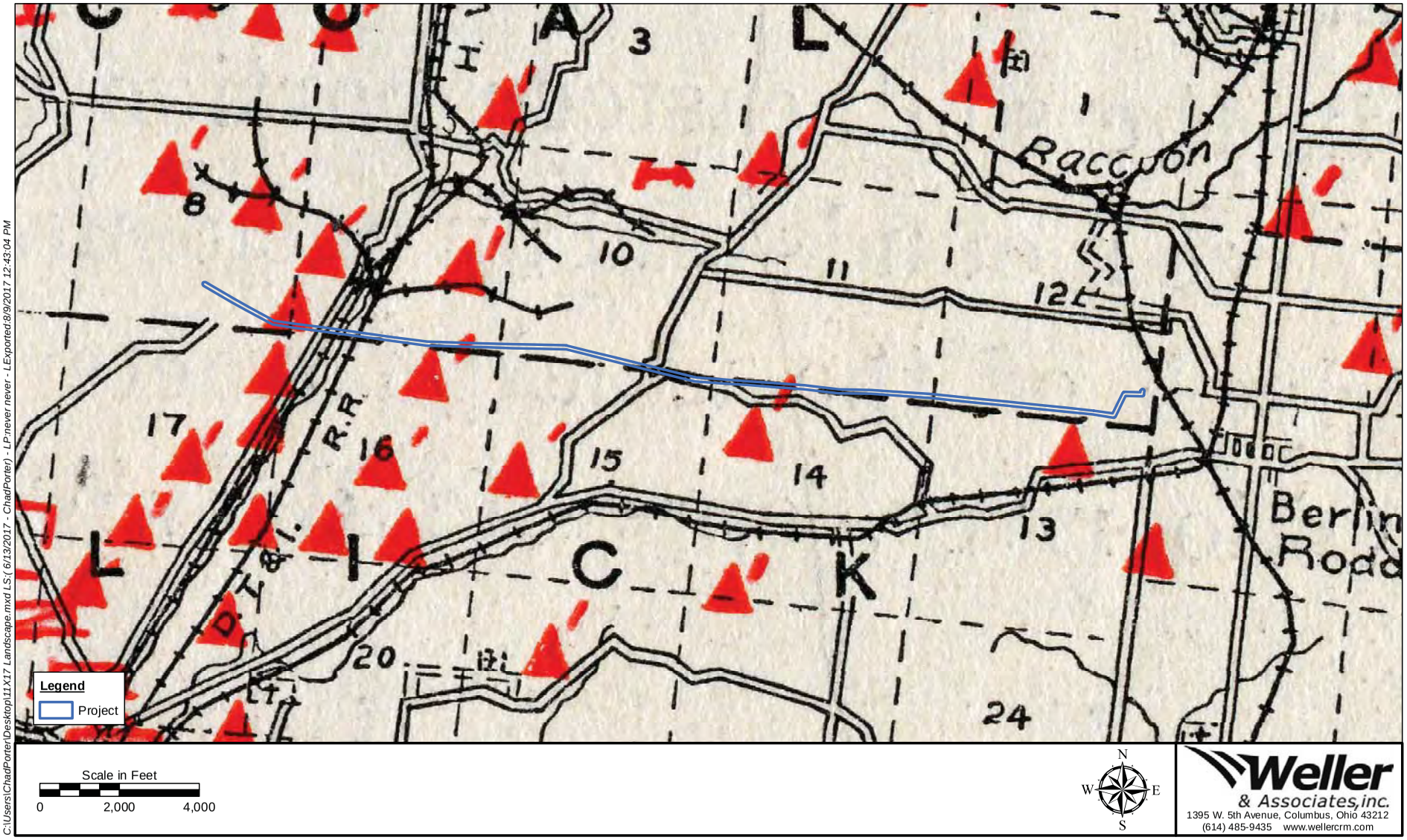

Figure 4. Portion of the *Archeological Atlas of Ohio (Mills' 1914)* indicating the approximate location of the project.

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Figure 5. Portion of the USGS *1913 Jackson, Ohio 15 Minute Series (Topographic)* map indicating the approximate location of the project.

Figure 6. Fieldwork results and photo orientations for Sheet 1.

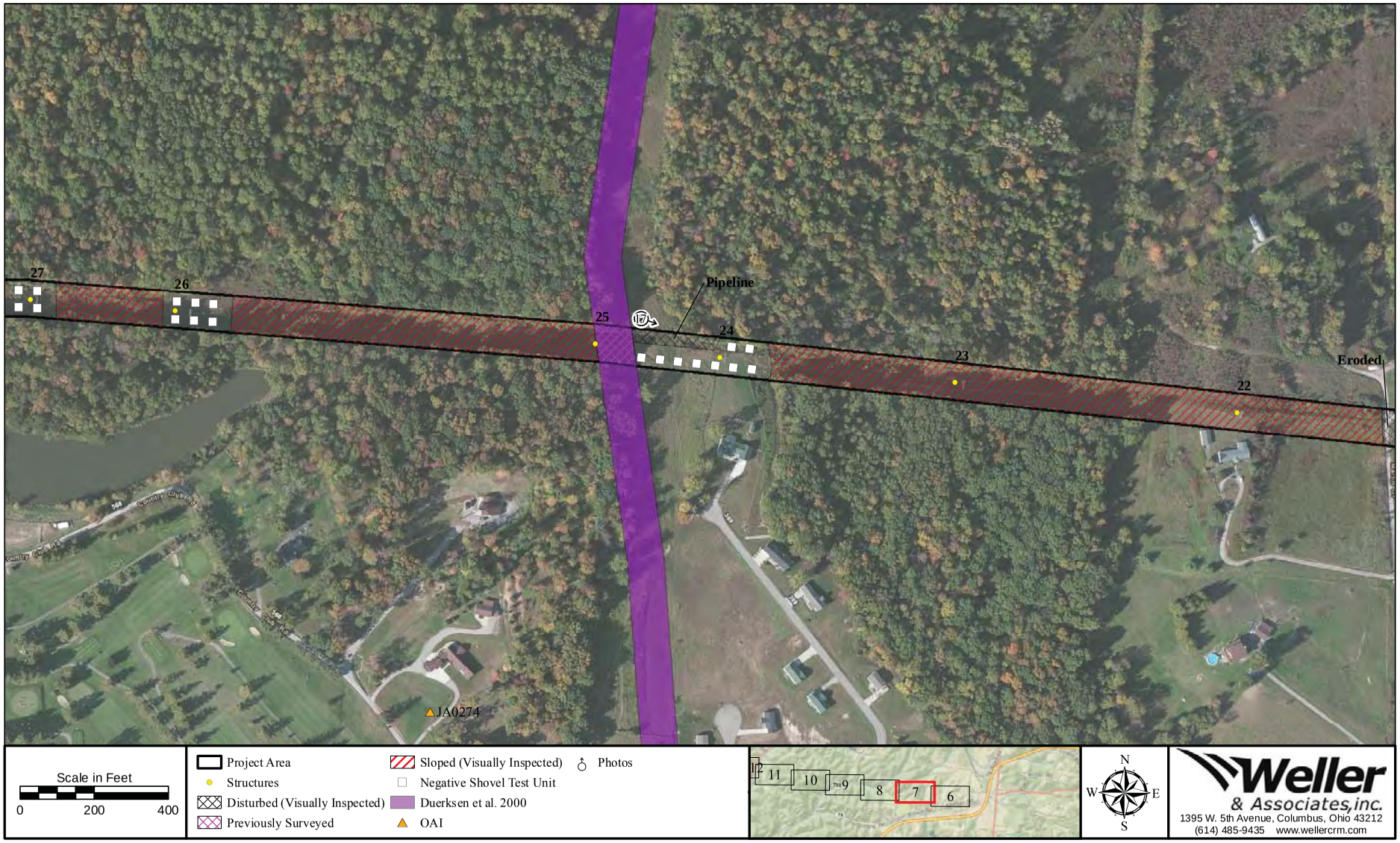

Figure 7. Fieldwork results and photo orientations for Sheet 2.

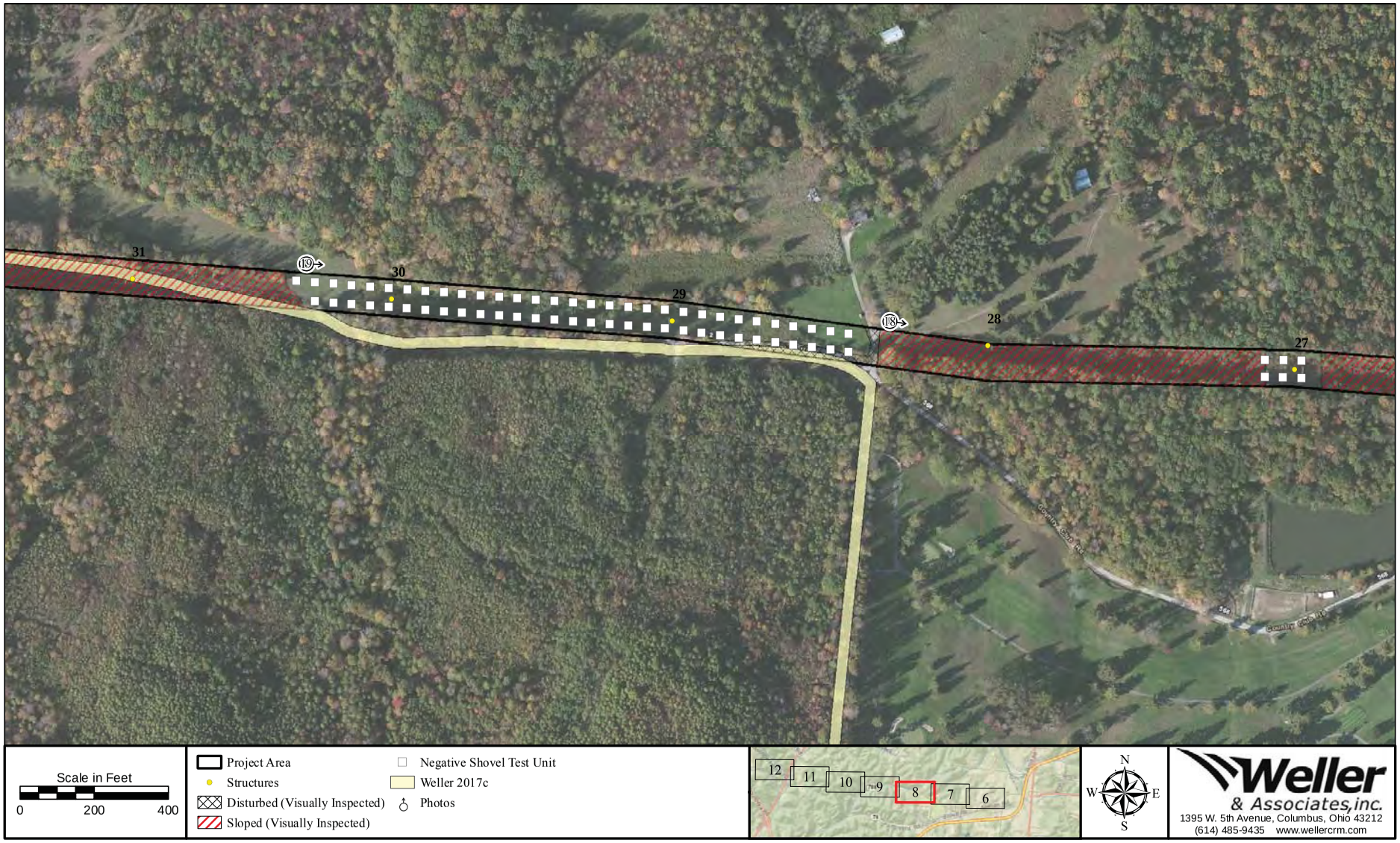

Figure 8. Fieldwork results and photo orientations for Sheet 3.

Figure 9. Fieldwork results and photo orientations for Sheet 4.

Figure 10. Fieldwork results and photo orientations for Sheet 5.

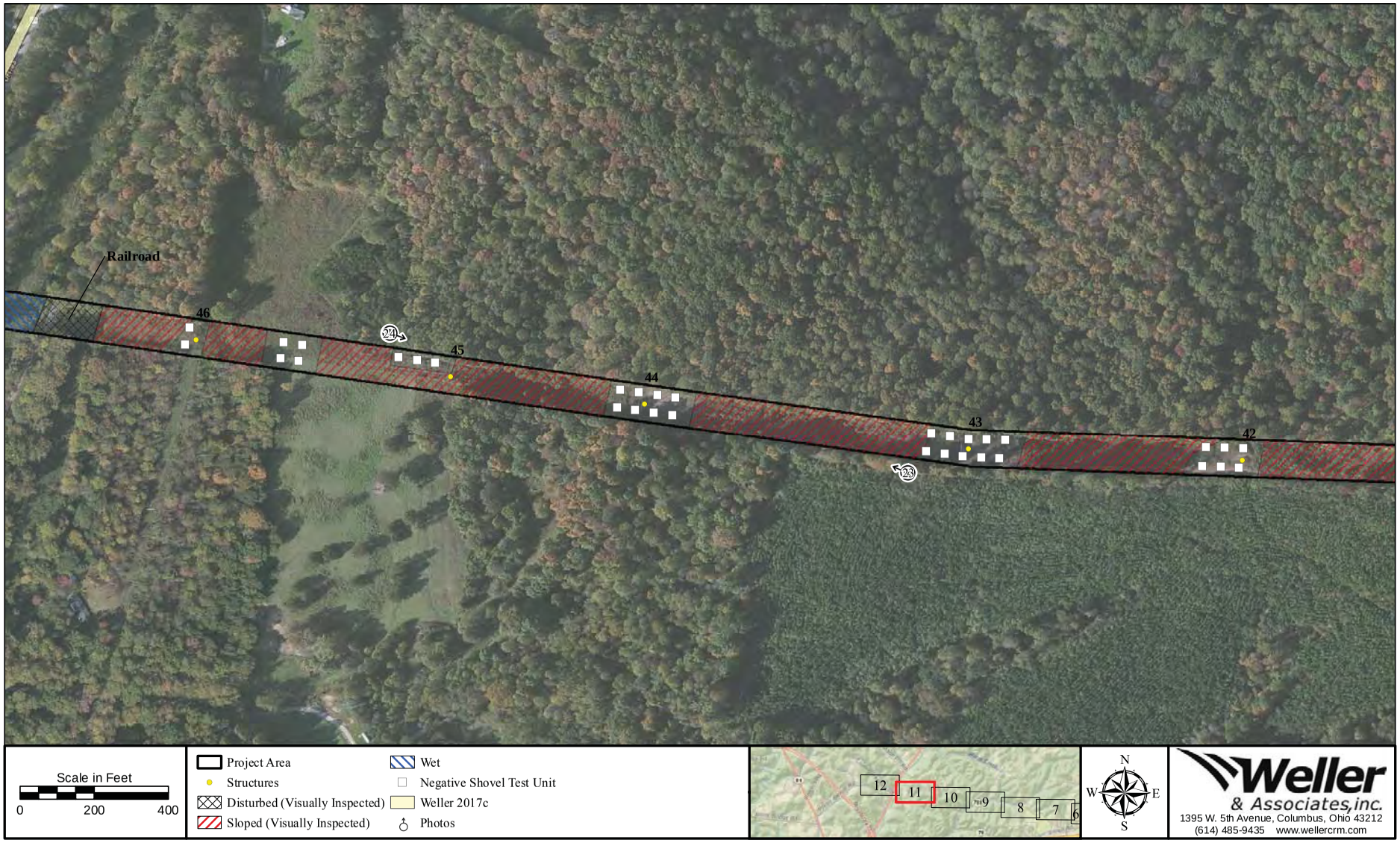

Figure 11. Fieldwork results and photo orientations for Sheet 6.

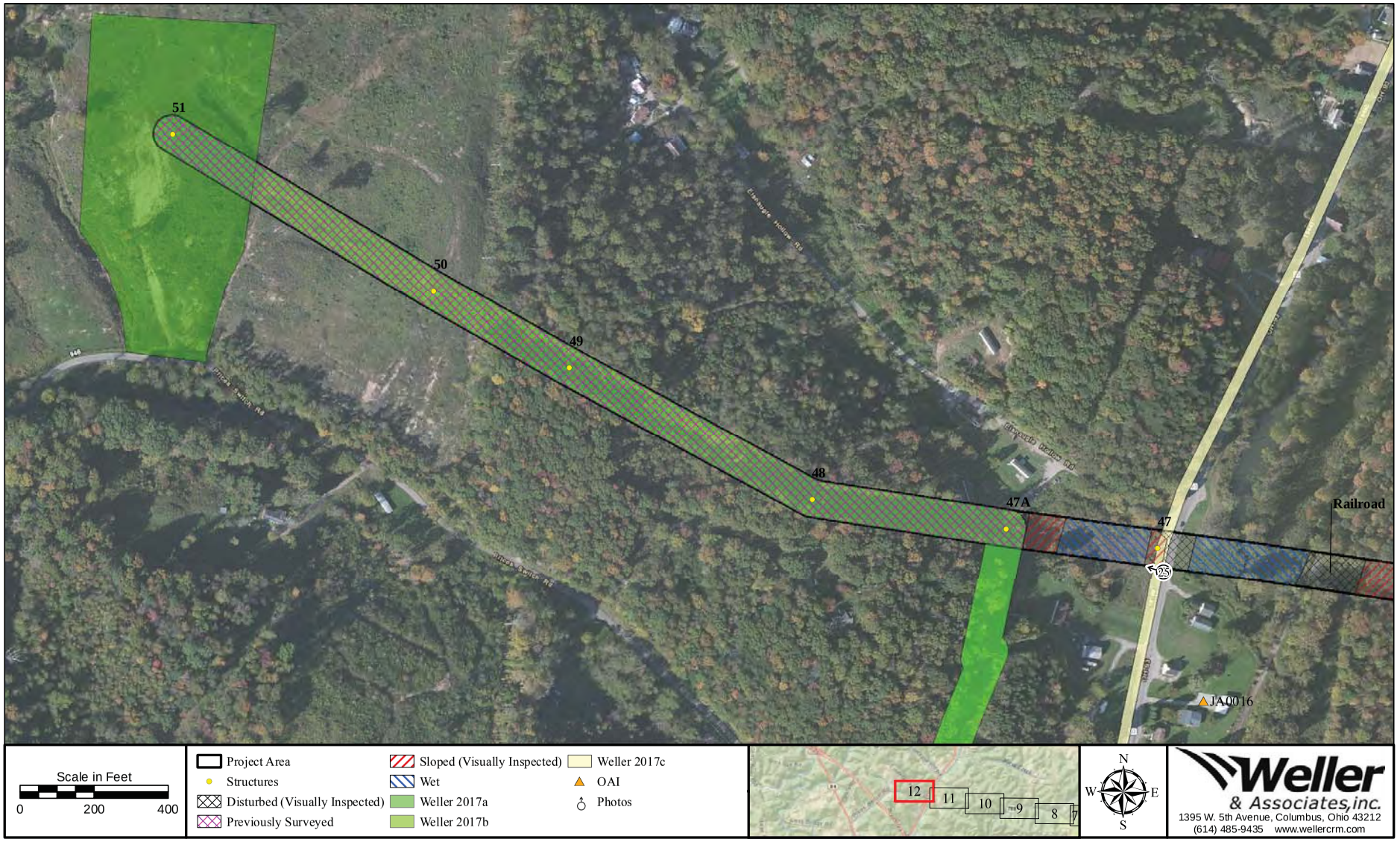

Figure 12. Fieldwork results and photo orientations for Sheet 7.

Figure 13. Previously surveyed area (Weller 2017) and the shovel tested areas north of structure 18.

Figure 14. Shovel tested area containing 3JA0408 and 33JA0409.

Figure 15. Shovel tested area containing structure 33JA0410.

Figure 16. Shovel tested area and existing gravel drive near structure 21.

Figure 17. Shovel tested fallow area and existing gas pipeline near structure 24.

Figure 18. Sloped setting surrounding structure 28.

Figure 19. Shovel tested areas containing structures 29 and 30.

Figure 20. Sloped setting containing structure 32.

Figure 21. Sloped conditions surrounding structure 38.

Figure 22. View of shovel tested area in the vicinity of structure 23-25.

Figure 23. Shovel tested area surrounding structure 39.

Figure 24. Shovel tested fallow area surrounding structure 43.

Figure 25. Shovel tested fallow area near structure 45.

Figure 26. Wet areas leading to structure 47A and the previously surveyed area (Weller 2017) in the western portion of the project.

Summary: Letter of Notification ,1 of 5 electronically filed by Ms. Christen M. Blend on behalf of AEP Ohio Transmission Power Company, Inc.